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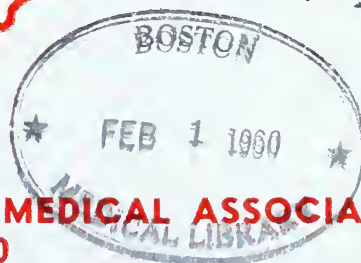


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The Journal OF

THE TENNESSEE STATE MEDICAL ASSOCIATION



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Volume 53

Number 1

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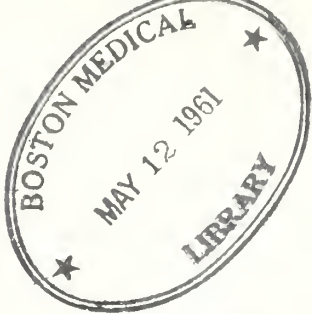
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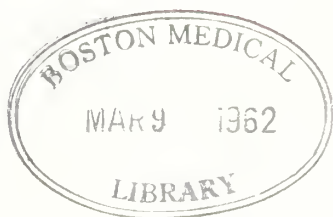




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The medical profession is, of necessity, preoccupied at the moment with the socio-economic aspects of adequate medical care of the aged in our population. As physicians, however, we must be aware of, and keep before us the very facts which have posed the current social and political problems. The prolongation of life through advances in medical science, the emotional readjustments to aging, the physical complaints, the loss of friends and relatives, the dislocation from physical surroundings, retirement from business, profession or the management of a home,—these constitute the background of the tension states and neuroses which dynamically are no different than those in the younger generation.

Tension States in the Aged and Infirm*

JUSTIN ADLER, M.D., Memphis, Tenn.

It is one of the tragedies of modern day civilization that for every advance we achieve some price, in one form or another, is being exacted from us. One could elaborate on this postulation in general, but we are more concerned with certain and specific aspects of modern medicine particularly with reference to the care of our Aged. Medicine has brought forth so many miracles of preserving health and of curing illnesses that the resulting prolongation of life has created and is still creating problems of a magnitude which we at this time can only surmise but not yet fathom. Social, industrial, and political implications as well as medical problems, created by medicine itself, are far reaching and to some extent beyond estimate. While in 1850 the life expectancy of an American was only 40 years, in 1930, it had risen to 60 years and in 1940 to 63 years, and today it is even higher.

This in itself could be highly commendable if social, industrial and medical developments had kept step with this changing situation. Unfortunately this has not been the case and consequently the problems connected with this increase in our aging population have become manifold. We are well aware that the individual beyond middle age is more prone to develop heart diseases,

tumorous growths, hypertension and a great variety of additional disorders. The corresponding increase in mental and emotional disorders indigenous to advancing age is not less spectacular and much more frequent than commonly assumed. Our State Hospitals, county farms, poor-houses, and Homes for the Aged, have been swamped for years with requests for admission of individuals above 65, and very few states have met this challenge with adequate provisions. The result is that from 20 to 25% of our State Hospital facilities are populated with patients above 65 years of age, about twice the percentage of that age group of the normal population.

To cope with ever increasing problems in connection with the aged, two major fields of scientific inquiry have come to the fore. One is *gerontology*, and the other is *geriatrics*. *Gerontology* is the science of the understanding of physical involution and aging processes in general, while *geriatrics* is that part of the medical science which deals with the understanding of the aging processes in humans and its treatment. Considerable strides have been made in both fields. Medicine has studied nutrition in the aged and has come up with very clear and definite answers. Metabolic diseases have been clarified considerably in the light of investigations. New discoveries in the field of endocrinology and in many other aspects of the medical sciences have given

*Read before the meeting of the Tennessee Psychiatric Association, April 14, 1959, Memphis, Tenn.

adequate emphasis and new directions to our goals to make life more comfortable for our aging population.

Psychiatric Aspects of Aging

As a psychiatrist, I am primarily concerned with the progress which has been made in the understanding and treatment of emotional and mental disorders of the aging individual. It would be wrong to assert that nothing was done in this aspect for the aging population formerly. The mental disorders were extensively studied and treatments and attempts at treatment were devised. Primarily the major disorders in form of senile psychosis and cerebral arteriosclerosis were the object of study and attempted treatment. These disorders, however, represent more or less the ultimate and end-product of a long series of maladjustment and organic deterioration. When these conditions developed, admission to the State Hospital was the inevitable result. Today, however, with the advance of preventive medicine, as well as with more effective therapeutic measures, the existence of these major disorders does not necessitate complete removal of the patient from society and consequent institutionalization. New drugs have appeared during the past few years which hold great promise for controlling major disturbances effectively and, together with other measures, even more can be expected. Considerable efforts are being made to cope with difficulties as they arise before major disorders develop. Social sciences, in connection with extensive psychiatric training of social workers and welfare organizations have been able to act effectively to forestall many tragedies of later maturity. Oddly enough, society and medicine for many years concerned itself only with the extremes of the aging process. It concerned itself with the study and treatment of mental diseases and of physical diseases indigenous to age, but relatively little was done to bring about an understanding of the many facts and factors which precede the outbreak of these extreme manifestations. We now know that efforts toward prevention of the dislocation of the aged, efforts toward their rehabilitation if necessary, hold great promise to prevent the incidents of these major disorders.

The realization that older people need something different than has been offered so far, has produced many efforts, even successful efforts, in our desire to treat and help at a time when treatment and prevention hold greater promise for success.

We have come to realize that many changes in behavior which we encounter in our aging population are not necessarily manifestations of old age. Many of these behavior changes are not different at all from the behavior which the somewhat younger population experiences and manifests under similar circumstances. For instance, temper outbursts or fear reactions may be considered characteristic of advancing age. Is this assumption justified? After all, the aging individual so frequently is being left out and is being dislodged from his rightful place. Why should he not become angry and excited at times? He frequently suffers social disadvantages, economic disadvantages, and business disadvantages which certainly will justify in him emotional reactions, sometimes even to an extreme. We consider many older individuals who show suspiciousness and resentment toward others, as paranoid individuals, and classify them as acting this way because of their old age. But is that really true? Is it an abnormal reaction? After all, the older person is being talked about frequently at home; he is being taken advantage of quite often; and frequently he is being disliked because he is in the way. Why should that individual not become somewhat paranoid when he encounters so many rather unpleasant situations. We think of *depressions* as another possible sign of the aging process. But why should an individual not feel depressed at times. After all, he is gradually losing his economic status. He has lost many of his friends and family members by deaths and departures. He does realize that his days on this world are numbered and that death is not very far away. Why should he not be depressed? Why should he not feel upset and worried? After all, one likes to live, even if one is old. In other words, many older individuals do have a right to be depressed. The same thing also applies to the phenomenon described as hypochondriasis, an excessive concern and preoccu-

pation with one's body functions. Well, older people have more difficulties in eating, have more difficulties in their muscles and general body functions. Why should they not complain at times?

Neuroses and Tension States

When younger people showed reactions of this type, they were examined, possibly sent to a psychiatrist who then, if it applied, would make a diagnosis of a psychoneurosis. He looked for causes and he looked for cures. The older person when he showed symptoms like these, was simply considered senile. We shrugged our shoulders and said, "Nothing can be done about it." Is this right? No it is not. The symptoms are the same and the causes are similar if not the same. So why should one take a different attitude and say nothing can be done. The causes for *neurotic reaction* and *tension states* in the aged population are manifold. There is a general decrease in strength, in skill and in endurance. There is a general waning of sexual prowess in both men and women. There is a progressive loss of attractiveness, with inability to bear and rear children. There is a general lack of interest in new things, a lack of interest in the gratification of needs, an increasing deficiency of biologic processes like digestion, and the development of sicknesses, tumors, etc., which are the cause for the rise of tension states in the aged. Neurosis and tension states in their various forms in the aged are very common, but oddly enough, they are being paid much less attention than the major mental disorders, although they outnumber them, far and beyond. The anxiety or tension state is common in adult life and is just as common in later maturity—in fact, even more so. It is the basis of practically all maladaptations, short of the reaction of mental illness. I do wish to say that advancing age invariably causes or may cause anxiety states and other psychoneurotic reactions. Many of these anxiety states in later life are very similar to reactions which the individual had shown in earlier life. If an individual has displayed a neurotic reaction pattern in his middle age and earlier life, it certainly tends to repeat itself in greater severity in later life.

What are now the causes of these *neurotic*

reactions, of these *tension states*, we may ask ourselves. First of all, we must realize the human machine gradually begins to slow down long before it shows signs of wearing out. The human machine undergoes a gradually accelerating decline of motor performance, of perceptions, of learning and of recall. The musculature begins to fatigue more easily and to recover more slowly after exertion. The muscles become less steady and less well co-ordinated. They show increasing atrophy which, together with the reduction of fatty substances, result in the characteristic face of the aged. The skin becomes less elastic, becomes more creased and folded, and discolored, taking on the characteristic yellow discoloration. Biologically, there are also changes of the internal organs, which are less visible but still felt severely by the individual. Many changes are taking place within the body which have been due to accidents and prior diseases. It is of no use to tell the aging individual to overlook those changes, those weaknesses, and to forget about them. It is no use to tell them that they are of minor significance and importance. Nobody likes it, neither the young nor the old. It is very difficult to adapt oneself to these aging processes. It often is impossible, and attempts to adjust oneself to it may lead to new maladjustments and additional difficulties. If they do occur and if the maladaptations do take place, we call them simply neurosis.

Let us take for instance, the loss of physical vigor and endurance. An individual may not realize that he is becoming gradually weaker until some sudden incident brings it forcefully to his attention. If such an individual is not sufficiently balanced and fails to accept his progressive weakness with equanimity, he may try to compensate for it in a pathologic manner. Either he may give up too easily, emphasizing his numerous complaints, or he may simply refuse to accept it, bragging about his still remaining strength and competence. Other attempts to compensate unhealthily for this loss of physical endurance are well known. One need only think of the many physical culture faddists who deny to themselves the inescapability of the aging process. Excessive physical efforts are being made by

aging individuals to prove their strength to themselves and to others. The results invariably are sickness and breakdowns due to overwork. If one then begins to resort to stimulants like amphetamines, Dexedrines, or even to the excessive use of alcohol, a clear picture of neurotic escape can be recognized.

Another basis for maladaptations and tension states is the loss of attractiveness, particularly in women. Attractiveness is an important thing in women, much more important than physical strength. Youth and beauty are means of obtaining security. If it is lost it is a threat to the security. If the aging female is unable to compensate for this loss of attractiveness, it may result in severe physical complaints. After all, the attitude of society in general toward the aging and weak female is far more tolerant than its attitude toward the aging male. If, therefore, the aging woman relies upon her physical complaints as a means to compensate for her loss of attractiveness, it is only a logical step.

Another reason for neurotic complaints in the aging individual can be found in the sex life. It is a common belief that old age is, or should be, identical with the loss of the sexual, both actively and insofar as interest is concerned. Nothing could be farther from the truth. Society so far, and still to some extent, has accepted the belief that old age, just like childhood is or should be sexless. We know that this is not the case, neither in children, nor in the aged. Waning sexual vigor may result in disappointments and in feelings of inadequacy, and subsequently in foolish or ill-advised ventures like marriages between old and young. A more common neurotic outlet for the sexually frustrated aged individual takes on the form of moral crusades. If one engages upon moral crusades, particularly concerning sex, one can easily talk and concern oneself with sexual matters without being criticized and with society's approval. Another pathologic outlet of the aged sexually frustrated person is in the infantile preoccupation with sex, engaging in sexual fantasies, self-satisfaction, thus frequently again producing feelings of guilt, anxiety

and depression, self-depreciation and hypochondriasis.

Failure of the sensory faculties, as in failure of vision and of hearing especially, lessens the contact with one's environment and produces tendencies toward misinterpretation and misunderstandings. It is the logical result of this failure, that the gradual establishment of suspiciousness and paranoid tendencies should occur. Thus again, anxiety, fear, and discouragement are produced.

Inadequate function of the internal organs like stomach, kidneys, liver, does give considerable discomfort as everyone knows. If one was overly concerned about the functions of these organs in former years, it is not surprising at all that at a later age these preoccupations will recur and produce hypochondrial reactions.

Other factors, probably more important than anything mentioned thus far, are the deficiencies of emotional life. The emotional life may be closely associated with the organic functions of the central nervous system. We know that if certain operations are performed on the brain, the emotional reaction of the individual changes greatly. We, therefore, believe that many emotional disturbances of the aged are due to organic changes. We do recognize the so-called "brain storms" of the aged, who suddenly lose their temper, become highly excited, highly depressed or show emotions in some other extreme form, and we do know that they occur more frequently in individuals with advanced cerebral arteriosclerosis. On the other hand, we are also aware of the fact that the emotional reactions in many aged individuals occur in a much more shallow fashion than experienced at an earlier age. It is a well accepted knowledge that emotional reactions to the loss of a loved one or to great disappointments in an aged individual is less deep, less profound than one would assume. Whether this is really due to the organic deteriorations, or whether it is due to the fact that the average aged individual has learned to take disappointments in his stride is difficult to say.

Aside from biologic factors which may produce psychoneurotic reactions in later maturity, there are other factors of more or less major significance. The biologic

factors connected with the cultural life of the individual can easily and frequently be modified, in spite of the fact that society as a whole has been and still is very slow to accept changes in the cultural pattern of the aged. To be dependent suddenly is one of the most unpleasant events in anyone's life. Even if this dependence is dependence upon one's own children, it becomes an upsetting factor. The loss of one's free volitional choice may result in anxieties, in tension, and depressions of acute proportions. Relocation, by moving from an accustomed home to the home of even one's own children, or by moving into an Old People's Home frequently produces similar reactions. It is difficult for an aged individual to make new friends and new attachments. The loss of one's importance and social and economic significance and prestige is a most upsetting and disturbing incident too. The loss of one's position in business or professional life for men and the loss of a woman's control of her home and her children may have similar effects. After all, the younger generation is gradually assuming the place which one has occupied for so many, many years. It is very hard for the older ones to sit on the sidelines. Is it any wonder that feelings of being unwanted, feelings of being unnecessary, and of being out of place are common reactions? What are the results? The affected aged person will become overly aggressive as a means of compensating for this reduced status. He may develop hypochondriacal complaints and may demand special privileges. And there again, this domineering attitude in the children's home may arouse severe guilt feelings in the younger generation, who feel that they owe their old folks love and respect on one hand, but who do know too, that they have been depriving the older person of many of their rights and privileges.

Another cultural factor which so often precipitates unpleasant neurotic reactions is connected with the retirement from an accustomed type of work. Retirement is usually based upon age and not upon lack of competence. Too early retirement tends to aggravate many existing tensions and may reactivate old ones. If one is retired suddenly, one loses one's security, based upon

certain facts and routine activities, and one simply becomes "free-floating." This, as we all know, is even the case in the younger generation, and naturally much more so in older persons. The result of retirement are feelings of being unwanted, of being unnecessary. Restlessness, depression, and resentment are invariable results. There are very few visible opportunities for occupation for a person retired, unless he has made adequate provisions for himself long before the retirement occurs. One should be prepared for this inevitable shift of interest and activities. Hobbies should be developed and established long before they are needed. Society should be educated to understand that the abilities of the older person have not disappeared and that they are still worthwhile and capable of great accomplishments.

Treatment

I would like to say a few more words as to treatment, in general. Treatment of a neurotic tension state in the aged is not as useless and hopeless as may be assumed. Treatment directed toward the actual cause and removal of it, treatment directed toward the actual improvement of one's situation can and does produce satisfactory results and even recovery in many instances. However, one aspect in the treatment of tension states should never be overlooked. The physical condition of the individual must be investigated and must be improved when indicated. Any physical complaint should be taken seriously. Even if one knows in advance that there is, in all probability no organic reason, one should never disregard the complaints on the aged as being simply "due to old age." The social rehabilitation of the aged is much more difficult to accomplish. Education of the public with the help of social agencies, of clubs, guidance clinics, will do much to improve the lot of the aged population, and will thus reduce the incidence of many neurotic reactions.

I know from my experiences that one never should say it is useless to treat an aged individual medically or psychiatrically. The rewards can be most gratifying if one is persistent and does not lose patience.

Whatever we are doing toward the betterment of the aged, it must never be forgotten that no matter how favorable an aging person's environment may be, how highly developed the facilities may be for their rehabilitation, how adequate his economic and affectional security, how considerate his family and his friends may be, the personal characteristics with which the aged enters upon senescence and senility may be sufficient in themselves to produce or reproduce neurotic reactions. The individual with all his lifelong assets and liabilities determines to a much greater degree the ultimate favorable or unfavorable outcome of a therapeutic approach.

Symposium: Clinical Effects of Fibrinolytic Activity. *Angiology* 10:244, (August Supp) 1959.

These 12 articles by different authors constitute a symposium on various aspects of fibrinolytic lysis of intravascular clots lodged in various portions of the venous and arterial system of the human. Clifton initially summarizes briefly the development of fibrinolysin and its mechanism of action and discusses the management of 76 cases of various types of thrombosis. The place of adjuvant therapy such as anticoagulant drugs and the management of complications is detailed. Moser in the following article enlarges upon the toxic affects and notes the 44% febrile reaction in patients and the absence of other serious effects.

Villavicencio and Warren discuss their use of the enzyme in 22 patients and note a similar incidence of febrile reactions. The use of fibrinolysin in cerebral arterial occlusion is next discussed by Sussman and Fitch and the favorable results (with vascular clearing in 4 of 9 cases) are detailed. Harloe discusses the management of 6 cases of thromboembolism or venous thrombosis and Sheffer and Israel report 33 patients treated for pulmonary embolism are related thrombotic episodes. The difficulties in proper evaluation of results are noted. Roberts and Thompson state that their clinical experience does not allow completely valid conclusions but report one serious hypotensive reaction to intravenous fibrinolysin. Moser, on the basis of 127 cases of various thromboses and thromboembolisms believes that there is ground for considerable optimism regarding the future of fibrinolytic agents but that further large scale studies will be required to establish accurately the value and proper use of these drugs in the management of thromboembolism.

In summary, this symposium represents a collection of the clinical experience of multiple authors most of whom are cautious in interpreting their results since the varied outcomes of these states are quite well known to be variable. The difficulty of accurate assessment of clinical results indicates very cautious optimism of present usefulness of fibrinolysin. (Abstracted for the Middle Tennessee Heart Association by W. Andrew Dale, M.D., Nashville.)

In the concerted attack in research on the etiology, pathogenesis and treatment of malignancy, chemotherapeutic agents are being used experimentally on a wide front. The approach is to use such substances as may interfere with the metabolic processes of the cancer cell.

Current Status of Cancer Chemotherapy*

RICHARD C. SEXTON, JR., M.D., Knoxville, Tenn.

Considerable interest in the chemotherapeutic approach to cancer has been manifest since the end of World War II. Research facilities for both experimental and clinical cancer chemotherapy have been greatly expanded. Approximately 45,000 synthetic chemicals, plant extracts, steroids and antibiotic culture filtrates are tested annually for antitumor activity. In 1958, Congress allocated \$25,000,000 for research in this field. These funds are distributed by the Cancer Chemotherapy National Service Center. Recently, Surgeon-General Burney of the Public Health Service announced the awarding of a \$1,437,172 one-year contract to the Sloan-Kettering Institute in New York City for studies with respect to new drugs. This is the largest one-year grant ever made by the Chemotherapy National Service Center.

Approaches to the enigma that is cancer, in general, have been more basic and more systematized in recent years. Attempts are being made to characterize the metabolic aberrances that render a given cell neoplastic. Natural body defenses against cancer are being studied. Additional information regarding the natural history of different neoplastic disorders is being sought. The mechanism of action of the various anticancer drugs is being further elucidated. Studies by Wright and associates¹⁻³ indicate that considerable correlation exists between the sensitivity of a tumor growing in a patient and the same tumor growing in tissue culture. This suggests the possibility of selecting a chemotherapeutic agent for cancer in much the same fashion as we select antibiotics in the infectious diseases.

For some time it has been apparent to most physicians that surgical therapy and ionizing radiation are not the answer to the cancer problem, although these are, admittedly, the only curative modalities at our disposal at present. For this reason, it should be determined with as much certainty as possible that every patient submitted for cancer chemotherapy is not a candidate for curative surgical or radiotherapy.

It has been reliably estimated that only one-third of patients with malignant neoplastic disease are alive five years later. This means that a majority of these patients, at the time definitive treatment is applied, have either inapparent or unestablished disease or, perhaps, gross extirpation or eradication of their disease is not possible by available technics. Experimental studies indicate that patients with inapparent or unestablished disease might benefit from adjunctive chemotherapy at the time definitive surgical treatment is applied. A nationwide study comprising forty-eight participating groups, under the auspices of the National Cancer Institute, is currently evaluating the feasibility of this approach. Operable carcinoma of the lung and stomach have been chosen for this study. The chemotherapeutic agent in use in this study is triethylene thiophosphoramide (ThioTEPA).

The purpose of this presentation is to briefly review the current status of cancer chemotherapy. Only brief allusions will be made to the treatment of the leukemias. The more commonly employed agents will be briefly discussed with some attention to what is known regarding their mechanism of action. A few cases illustrating the use of these agents will be briefly discussed.

*Read before the Tennessee-Kentucky Regional Meeting of the American College of Physicians at Nashville, on October 31, 1959.

The following points are emphasized at the outset:

- (1) Be sure a malignant disorder exists.
- (2) Be sure the patient is not a candidate for potential curative surgery or radiotherapy, and that chemotherapy is the best palliative approach.
- (3) Do not confuse an intrinsic tendency to slow progression on the part of the tumor with therapeutic response to chemical or other therapeutic agents.
- (4) The use of chemical agents in the treatment of cancer is usually limited by the patient rather than the tumor. These agents are double-edged swords.
- (5) Cancer chemotherapy should be judiciously integrated into the total care program of the patient.
- (6) If possible, use one agent at a time and allow time for assessment of therapeutic response between different agents.
- (7) Present knowledge suggests that cancer is probably a group of related disorders rather than a single etiologic entity. For this reason, no single curative or universally inhibiting agent is apt to be found. Currently available agents exhibit some degree of specificity; hence, the cancer chemotherapist must be discriminating in his choice of agents.
- (8) In general, the following tumors are not responsive to chemotherapy:
 - (a) Brain tumors
 - (b) Tumors of connective tissue origin
 - (c) Epidermoid carcinoma of the head and neck
 - (d) Carcinomas of the pancreas, large bowel, stomach, liver, kidneys, urinary bladder, cervical and fundal carcinomas of the uterus, and malignant melanomas

Chemotherapeutic Agents of Current Value and Interest

These agents may be divided as follows:

- (1) Antimetabolites
- (2) Polyfunctional alkylating agents
- (3) Steroid hormones
- (4) Miscellaneous agents

Antimetabolites.

The antimetabolites commonly used are the purine antagonists and the folic acid antagonists. An antimetabolite is a substance which is so much like a normal substance that it is accepted by the cell. After incorporation in a cell it then damages the cell or inhibits its growth. Of the purine antagonists 6-mercaptopurine, 6-chloropurine, and 6-thioquanine have been used. Six-mercaptopurine is the agent commonly employed in adult acute leukemias, while the folic acid antagonists are frequently employed in the acute leukemias of childhood. The above purine antagonists seem to exert

their beneficial effects by damaging or inhibiting the growth of the cell into which they have been incorporated as parts of the purine and pyrimidine molecules.

The initial dose of 6-mercaptopurine is 2 to 2.5 mg. per kilogram per day. After hematologic response has been obtained a maintenance dose of 50 to 100 mg. per day is usually required. It is the most effective therapeutic agent, except for the corticosteroids and adrenocorticotrophin, in the treatment of acute leukemia of adults. About 30% of children with acute leukemia respond.

The two folic acid antagonists commonly employed are amethopterin (Methotrexate) and aminopterin. Amethopterin is the preparation of choice. The dose is about 2.5 to 5 mg. per day. Some patients who relapse on 6-mercaptopurine therapy will respond transiently to amethopterin. Amethopterin has also been found to produce striking palliation in patients with choriocarcinoma.

Amethopterin exerts its beneficial effects by interfering with the conversion of folic acid to its formyl derivative folinic acid. This blocks the single carbon fragments which are usually available for the synthesis of pyrimidines, purines, and amino acids. This mechanism, and that observed with 6-mercaptopurine therapy, appears to be the most basic and most specific which has been employed in the treatment of malignant neoplastic disease.

Case Illustration. K. C., a 32 year old white woman, became ill in April, 1958. In July, 1958, a diagnosis of acute granulocytic leukemia was made. Because of bleeding tendencies, therapy employing both 6-mercaptopurine and corticosteroids was instituted. A good clinical and hematologic remission was induced which lasted until January, 1959, at which time symptoms suggestive of involvement of the central nervous system developed. These occurred at a time when the patient showed a good remission of her disease as related to the peripheral blood. On February 21, 1959, spinal fluid studies disclosed 2,624 cells, all of which were blast forms. Fifteen milligrams of amethopterin was given intrathecally, and spinal fluid studies were repeated on March 4, 1959, at which time the spinal fluid was normal in every respect. Subsequently, the patient had a transient remission on orally administered amethopterin. The patient expired from an overwhelming septicemia on June 8, 1959.

About 50% of children with acute leu-

kemia now survive an average of one year after diagnosis, as compared to an average survival period of 4 months prior to the introduction of antimetabolites in 1948.

Chronic Leukemias. Busulfan (Myleran) is the agent of choice in the treatment of chronic granulocytic leukemia. It can be given orally over a long period of time. Six-mercaptopurine and colcemid have also been used.

Triethylene melamine and chlorambucil (Leukeran) are the chemotherapeutic agents of choice in the treatment of chronic lymphocytic leukemia. Thrombocytopenia may develop as a result of their use. The corticosteroids often exhibit striking benefits in those patients who have hemolytic anemia, bleeding manifestations, or thrombocytopenia states. X-ray therapy remains a good and frequently employed modality in the treatment of chronic leukemias. It should be carefully integrated into the total care program of the patient.

Polyfunctional Alkylating Agents. The polyfunctional alkylating agents are injurious to rapidly proliferating cells, as well as to normal cells. Their injurious effects seem quantitatively greater in the former group of cells. These agents are polyfunctional in that they have two or more reactive groups and are thus able to introduce alkyl groups into biologic materials. They are, therefore, cytotoxic agents which, when given, have an effect similar to that of total body irradiation. Hence, they are referred to as radiomimetic agents.

The alkylating agents commonly used are methyl-bis (B-chlorethyl) amine hydrochloride (NH₂, Mustargen), triethylene melamine (TEM), triethylene phosphoramidate (TEPA), triethylene thiophosphoramidate (Thio-TEPA, TSPA), Myleran, chlorambucil (Leukeran), and phenylalanine mustard (PAM). These agents find their greatest field of usefulness in the treatment of the lymphomas. Nitrogen mustard is the agent of choice in the treatment of Hodgkin's disease. It can be given in a single dose of 0.4 mg. per kilogram. TEM and chlorambucil can be given to ambulatory patients. Corticosteroids are of little benefit in Hodgkin's disease. Actinomycin may be of some value in the treatment of patients with

Hodgkin's disease in the early phase of the disease. Patients with lymphosarcoma exhibit a more variable response to these agents. Patients with reticulum cell sarcoma, in general, are more resistant to chemotherapy. Patients with small cell lymphosarcoma often respond nicely to the alkylating agents, much as is the case with chronic lymphocytic leukemia. Extradural lymphomatous infiltrates are usually preferentially treated with nitrogen mustard, followed by X-ray therapy, in order to minimize aggravation of compression symptoms.

Some patients with disseminated mammary cancer are benefited by nitrogen mustard, triethylene melamine, and triethylene thiophosphoramidate. Bateman and Carlton¹ and others are quite enthusiastic about the palliative benefits of the phosphoramides in these patients.

The alkylating agents are also of some value in the treatment of metastatic or extensive intra-abdominal ovarian carcinoma. Triethylene melamine seems to be the agent of choice. Twenty-five to 30% of patients show some objective improvement, and about 40% experience subjective improvement. The duration of response averages one to three months.

Intra-arterial administration of the alkylating agents has also been employed. Intracarotid administration of nitrogen mustard and Thio-TEPA has been used in the treatment of cerebral metastases from bronchogenic carcinoma and mammary cancer. The former often produces convulsions and transient unconsciousness, even in patients who benefit from its use. These complications, fortunately, have not been observed with intracarotid administration of Thio-TEPA.

Recently, Creech and associates² at Tulane have popularized isolation perfusion techniques in the treatment of cancer. Perfusion is accomplished with a pump-oxygenator employing a bubble oxygenator and a sigmamotor pump. An oxygenator is used because a high oxygen tension seems to potentiate the activity of most of the chemotherapeutic agents. Lesions of the extremities are most amenable to this approach, but it has been employed for palliative purposes in inoperable malignancies of the breast, pelvis, and thorax. This technique permits perfusion of the tumor bed with larger

doses of the agent and minimizes the systemic effects, particularly the depressant effects on bone marrow activity. The final place of this approach in our armamentarium remains to be determined. Rather striking immediate results have been observed in the treatment of malignant melanomas of the extremities employing this modality. The capricious nature of this disease makes it extremely unlikely, however, that it can be controlled in this fashion.

Intracavitary Administration. Pleural effusion, due to pleural metastases from any malignant lesion, is often benefited by these agents. Nitrogen mustard and triethylene thiophosphoramide are the agents of choice. The percentage of response may be improved somewhat by the concomitant use of radioactive gold. Intraperitoneal instillation of these agents has also been done but, in general, it is more painful to the patient and has not been as useful as intrapleural injection.

Some reports indicate that as many as 30% of patients with inoperable bronchogenic carcinoma benefit objectively from the administration of alkylating agents, and that as many as 50% may show some symptomatic improvement. Nitrogen mustard is the drug of choice, although triethylene melamine can be useful in ambulatory patients if its potent myelodepressant effects are kept in mind. Nitrogen mustard is particularly useful in patients with a superior vena caval syndrome due to lymphomatous masses. It should be given prior to X-ray treatment, inasmuch as its beneficial effects only last one to two months, and inasmuch as it minimizes the possibility of subsequent X-ray therapy increasing the compression symptoms.

Case Illustration. W.L., a 53 year old white man, had pyrosis and melena in October, 1953. Shortly thereafter hematemesis occurred. In April, 1954, following recurrent hematemesis, a laparotomy disclosed what was regarded, grossly, as inoperable gastric carcinoma. A large mass was described in the region of the gastric cardia. A biopsy specimen was interpreted as small cell lymphosarcoma. Between May 21, 1954, and June 3, 1955, the patient was given small doses of triethylene melamine intermittently by mouth. On December 16, 1955, X-ray studies of the upper gastrointestinal tract failed to disclose any roentgen abnormalities intrinsic to the upper gastrointestinal tract. On September 16, 1958, the patient

died from bronchogenic carcinoma. Necropsy studies disclosed only minimal questionable residuals of the previously noted gastric lesion.

This patient lived a little over four years after the institution of triethylene melamine therapy and died from a second neoplastic disorder. The treatment of the latter with nitrogen mustard may have inadvertently treated his lymphosarcomatous disease. Careful review of the histologic studies confirmed the presence of two distinct neoplastic diseases in this patient.

Sex Hormones. The sex steroids are most useful in the treatment of certain patients with disseminated mammary cancer and inoperable prostatic cancer. Physiologically, these agents stimulate and regulate proliferation and function of mammary and prostatic tissues. Malignancies arising from these tissues may be profoundly altered by changes in hormonal balance or changes in their physiologic environment effected by the administration of these substances. The exact mechanisms of action have not been determined. In general, a given hormone seems to act by antagonizing the activity of the opposite sex hormone and by inhibition of pituitary function. Somewhat similar alterations in tumor behavior can be effected by various endocrine ablative procedures. Again, the improvement seems to be contingent on a favorable change in the physiologic environment of the tumor or in poorly understood change in the host-tumor relationship.

Estrogenic substances should be avoided in premenopausal women with disseminated breast cancer. Roughly, 50% of breast cancers are estrogen-dependent. These patients with estrogen-dependent lesions benefit from bilateral oophorectomy. These same patients may again benefit from adrenalectomy. Androgens in a dosage of 300 to 600 mg. of testosterone propionate per week may benefit patients in this age group.

Patients more than ten years past the menopause may benefit rather strikingly from the use of estrogenic substances. The disease is apt to progress at a slower pace in this group, permitting a more leisurely appraisal of different therapeutic approaches. The possibility of control of local disease with X-ray therapy should not be forgotten.

Case Illustration. Mrs. B.B., a 76 year old white

woman, had a left radical mastectomy in 1946. She did quite well during the ensuing 8 years and then developed a nodule in the site of the incision, a biopsy of which was reported as adenocarcinoma. Four nodules developed, subsequently, all of which were treated with irradiation. In July, 1956, she was found to have a left sided pleural effusion. Cytologic studies of the pleural fluid were suspicious of malignancy. Twelve hundred cubic centimeters of pleural fluid was removed. The patient was placed on diethylstilbesterol, 5 mg. orally b.i.d. This has been continued in decreasing doses to the present time. There are now no physical or radiographic evidences of residual or recurrent disease in this patient.

The disease in this patient was dormant for a period of 8 years, and seemed to progress rather slowly even after it became active. The patient, however, had rather markedly symptoms at the time estrogen therapy was instituted. No other treatment was given. It seems clearly apparent that estrogen therapy effectively suppressed the disease in this patient or in some occult fashion augmented host-resistance.

Miscellaneous Agents.

Huggins and McCarty⁶ have recently demonstrated that 3-methylcholanthrene has a tumor-inhibiting effect, both in human and experimental mammary cancer. This effect is paradoxical, inasmuch as this agent and other polycyclic hydrocarbons are known to be carcinogenic. It appears to exhibit its effect by inhibiting pituitary production of gonadotrophin and by a direct antineoplastic effect on the tumor. It is given in a dosage of 20 mg. per day in sesame oil, intramuscularly. I have had occasion to treat 4 patients with 3-methylcholanthrene, 2 of whom responded rather strikingly; the other 2 showed no response.

Wright and associates¹⁻³ recently reported on their experiences in the chemotherapy of advanced disseminated breast cancer in the treatment of 67 incurable cases. The agents employed were Thio-TEPA, chlorambucil, aminonucleoside of puromycin, actinomycin D and amethopterin. It was their conclusion that some definite palliation was achieved with amethopterin and Thio-TEPA, but that no improvement occurred with the other agents employed. In 36 cases treated with amethopterin, "temporary objective improvement occurred in 10 cases with metastatic carcinoma of the breast, equivocal results in 9, and progres-

sion of the disease in 17." Treatment with amethopterin was given daily over a period of 2 weeks to 3 months before improvement was apparent.

Patients with inoperable prostatic cancer are best treated by bilateral orchiectomy and the administration of 5 to 15 mg. of stilbesterol daily, or some other physiologically potent estrogenic substance. Here, again, the behavior of the disease is profoundly altered by changing the hormonal environment of the tumor. Adrenalectomy and hypophysectomy are occasionally done as last-resort procedures in these patients, but this approach has been largely abandoned.

Unfortunately, carcinoma of the male breast is seldom found before it has become incurable by radiation or surgical therapy. A fair number of these patients have androgen-dependent lesions. The treatment is, therefore, similar to that of carcinoma of the prostate, that is, orchidectomy and administration of estrogenic substances. Treves⁷, in a recent report on experiences with male mammary cancer, from the Memorial Hospital in New York, regards castration as the ablative procedure of choice. He regarded the results from adrenalectomy and hypophysectomy as being inconclusive in the small number of cases in which they have been done. It was his conclusion that further investigation is needed with respect to the use of estrogenic substances in male breast cancer, and that his experiences indicated that corticosteroids were superior to estrogenic substances in the patient who has relapsed after orchiectomy.

Shortly after the introduction of adrenocorticotrophin and corticosteroids, it was observed that these agents reduced the mass of lymphatic tissue, produced dissolution of lymphocytes, and retarded growth of some mesenchymal tissues. These observations led early workers to anticipate that these agents would be effective in the lymphomas. This conjecture proved to be, in part, correct. They may be of considerable value in some patients with lymphosarcoma. Patients with chronic lymphocytic leukemia with thrombocytopenia, bleeding tendencies or hemolytic anemia often benefit from their use. Seventy per cent of children ill

with acute leukemia will exhibit a transient remission. These agents are most useful in patients with acute leukemia whose illness is sufficiently grave so that there is not time for a response from antimetabolite therapy. Corticosteroids may provide a brief period of respite, therefore, after which other forms of therapy can be instituted. They are also often of some transient benefit after other forms of therapy have been exhausted in patients with disseminated mammary cancer. In fact, transient nonspecific palliation may be provided in most any disseminated malignant disorder that is diffusely symptomatic. The side effects and complications of corticosteroid therapy, however, should be weighed against the possible benefits to the patient.

The actinomycins are highly toxic antibiotics. The most widely used members of this group are actinomycin C (sanamycin) and D. Toxic doses produce lesions of the gastrointestinal tract, skin lesions, and bone marrow depression. Actinomycin D has been reported to temporarily benefit children with rhabdomyosarcoma. Pulmonary metastases from Wilms' tumor have been observed to regress with actinomycin D therapy. The actinomycins are of some benefit in patients with early Hodgkin's disease. Actinomycin C is given in a dose of 0.1 to 0.4 mg. per kilogram, intravenously, every 2 to 3 weeks. Actinomycin D is given in a dosage of 0.015 mg. per kilogram, intravenously, for 5 days.

The Japanese antibiotic mitomycin C is currently on trial in this country. Thrombocytopenia and leukopenia have been observed frequently and seem to limit its usefulness. It has been observed to have some therapeutic benefit in lymphosarcoma, chronic leukemias, rhabdomyosarcoma, a few epithelial tumors, and Hodgkin's disease. It appears, however, at this juncture that less toxic chemotherapeutic agents are equally efficacious in most of these disorders.

Metastatic testicular teratocarcinoma has been treated with nitrofurazone with striking objective response. It is administered in a dose of 0.5 Gm. b.i.d. Unfortunately, most patients eventually develop an intolerable peripheral polyneuropathy.

Choriocarcinoma and other trophoblastic tumors benefit appreciably from the administration of amethopterin. The folic acid content of these tumors is high, so it is reasonable that a folic acid antagonist would adversely affect their growth. A state of "no apparent disease" can be established in many of these patients but, like other patients receiving chemotherapy for cancer, their tumors eventually escape the suppressive effects of the drug.

Some reports indicate that retinoblastoma is most effectively treated with a combination of TEM and radiotherapy.

Nitrogen mustard has been used in the treatment of neuroblastoma with some palliative benefit. These patients will sometimes benefit from amethopterin, corticosteroids and actinomycin C and D.

Multiple Myeloma. Ethyl carbamate (Urethane) is the chemotherapeutic agent of choice in the treatment of multiple myeloma. It is given in a dose of 2 to 4 Gm. per day, in divided doses, with a careful watch for bone marrow depression. It is best given as a 10% aqueous solution, if tolerated. Temporary improvement can be induced in 10 to 30% of patients. Corticosteroids and adrenocorticotrophin are useful in some patients for symptomatic relief. Stilbamidine has been used, but is generally less useful than Urethane. Radiation therapy for the relief of local symptoms and nonspecific measures should, of course, not be overlooked.

Anaplastic carcinomas of the nasopharynx and seminomas are occasionally moderately sensitive to nitrogen mustard. These lesions are, however, also radiosensitive. Russian reports say that sarcocystin is effective against seminomas, but these reports have not been confirmed in this country.

Recently, a new chemotherapeutic agent, Cytoxan, has been released for use in this country. Clinical observations on its use are rather limited. It is an alkylating agent. Thus far it appears that its spectrum of activity will be quite similar to that of nitrogen mustard. Its major side effects are nausea, vomiting, granulocytopenia, thrombocytopenia, and alopecia. It may be given intravenously, orally, intramuscu-

larly, intrapleurally, intraperitoneally, or injected directly into the tumor.

Conclusion

It is apparent from the foregoing discussion that no curative drug for the treatment of cancer has been found. Progress in this field is likely to be slow and will, undoubtedly, be preceded by increasing knowledge of cellular pathology and physiology. The agents currently available to us are, admittedly, feeble in their activity, but it has been shown that judicious utilization of them afford some worthwhile palliation in certain carefully chosen patients. Current studies on 3-methylcholanthrene, fluorinated pyrimidines, halogenated progesterones, and steroid analogues may provide us with additional agents with which to combat these disorders.

Finally, it would appear that the most fruitful approach to cancer chemotherapy lies in the metabolic characterization of each tumor and the administration of anti-metabolite therapy based on this or, perhaps, in the protracted manipulation of the biologic environment of the cancer cell in such a way as to suppress its activity or normalize its biologic behavior.

Summary

1. The current status of cancer chemo-

therapy is discussed.

2. Most of the currently used agents are briefly discussed.
3. Three cases illustrating unusual responses to these agents are briefly presented.

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A declining rate of acute suppurative appendicitis has been reported from various areas of the country. This reduction in cases cannot be related specifically to the use of antibiotics. The causes for this decreasing incidence are not clear.

The Declining Appendectomy Rate*

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During the period covered, roughly from World War I to World War II, the emphasis in the reduction of mortality and morbidity due to acute appendicitis was on the early recognition and operation in cases of the disease. The philosophy of taking the chance on removal of a normal appendix rather than to allow an acute appendix to go unoperated upon was accepted good surgical judgment. With the advent of antibiotics that help control infections of enteric origin, the need for rushing a patient to the hospital and operating immediately decreased considerably. During the past 10 years the concepts have developed that it is permissible to wait a few hours if necessary to more accurately establish the diagnosis of acute appendicitis, and that it is better to wait until an "interval appendix" becomes acute before subjecting the patient to an appendectomy. There are a number of institutions reporting series of appendectomies over long periods of time which show an improving diagnostic ability of their staff members and decreased morbidity and mortality of their patients.^{1,2,3,4} However, the falling appendectomy rate shown in the figures of these studies has not been emphasized. Brothel and Castleton and Puestow⁵ recently have reported a general decrease in the rate of acute appendicitis which is independent of patient shifts from one hospital to another.

This report is a statistical analysis of appendectomies done at Blount Memorial Hospital during the past 9 years. It shows that there is not only a decrease in the number of appendectomies where no acute disease is found microscopically, but there is also as

great a decrease in the number of cases showing acute inflammation at operation. Although there has been a steady rise in population served by this hospital, and although there has been a proportionate rise in the number of patients admitted for possible acute appendicitis, the appendectomy rate has gone down by about one-half.

Material and Results

Blount Memorial Hospital has a capacity of 210 beds and is the only hospital located in this community and surrounding area of about 65,000 population. There has been an average annual increase in population of 3% as projected from the census figures by the Business Research Bureau of the University of Tennessee. The number of hospital admissions as well as the number of major operations each year has shown an annual increase of about 5%. The economy was stable during this time of study and there were no obvious factors which influenced the number of patients with acute appendicitis that were seen by physicians in this community.

For the past 7 years, the staff's tissue committee has made annual studies of the primary appendectomies performed at this hospital. All appendectomies which showed polymorphonuclear infiltrations in the mucosa or muscularis were diagnosed as "acute suppurative appendicitis." All others were placed in the "nonsuppurative disease" category which included such conditions as normal appendix, carcinoid, oxyuriasis, obstruction, periappendicitis and catarrhal appendicitis. Table 1 gives the results of this study. It is noted that the rate of both suppurative and nonsuppurative appendices began to fall in 1952. From 1947, when the hospital opened, to 1952 the rate of appendectomy was rising rapidly associated with the buildup of medical facilities and staff.

*Read before the Blount County Medical Society, Oct. 1, 1959.

†From the Blount Memorial Hospital, Maryville, Tenn.

Table 1

INCIDENCE OF APPENDICITIS (Pathologic Diagnoses)		
Year	Acute Suppurative Appendicitis	Total Appendectomies
1950	147	225
1951	148	289
1952	123	224
1953	124	206
1954	103	161
1955	105	164
1956	106	156
1957	100	150
1958	76	100

In addition, it is noted that there not only was a lowering in the total number of cases, but there was also a significant drop in the cases showing acute suppurative changes.

To see if the drop was due to a decreased number of patients with acute appendicitis or an absolute decrease in the disease rate in the community, a sampling study was made. All the patients (393) admitted to the hospital during January 1950 were studied in comparison with all those (841) admitted during January 1958. Table 2 shows the results of this analysis. It can be seen that while the appendectomy rate was falling, the admission rate for possible appendicitis was rising. There are some reasons why this sampling may not be entirely applicable to the overall problem. First, the number of patients actually admitted during the study period was not quite proportional to the monthly average admission rate for the year. Secondly, there is a greater utilization of the hospital now than formerly, so a higher percentage of cases of possible appendicitis in 1950 may have been observed in the home. Lastly, there are seasonal variations in the number of cases of appendicitis as well as diseases suspected of being appendicitis. In conclusion, therefore, the facts uncovered in this sampling study are only suggestive that cases of suspected appendicitis are being cured without appendectomy. The problem of making further analysis along this line is so great, and the interpretation of the results are so

variable, it does not seem worth while to study the matter further in this manner.

Table 3 shows a tabulation of data obtained from the study of patients that had been observed for acute appendicitis but were not operated upon. No significant difference in treatment of cases during the two periods of time could be found, although the series were quite small. There was an actual decrease in the use of antibiotics which is in keeping with the general trend that patients suspected of acute appendicitis should not be given antibiotics. Of the two patients who had subsequent admissions for suspected acute appendicitis, one had an appendectomy with a normal appendix removed and the other did not have an appendectomy.

Discussion

The cause for the declining rate in acute appendicitis is not known. There has been some guessing, but a single factor has not been found.⁶ Such factors as the effects of antibiotics on antecedent diseases as well as on the acute cases of appendicitis have been mentioned. Dietary factors, changes in bacterial populations, and better national economy have been cited. It was felt that perhaps a willingness on the part of the surgeon to watch his patients, knowing that he had powerful antibiotics to back him up if a complication occurred, might be a factor. Table 4 shows the results of an analysis of 25 unselected cases of appendectomy performed in 1950 as compared with a similar group in 1958. For the patients who were observed in these two periods there was no significant difference in the time intervals between admission and onset of operation. Of course it is impossible from the data on the hospital records to get a sampling of any change in the way physicians observed patients before they are admitted to the hospital.

Table 2

SURVEY OF ALL PATIENTS ADMITTED IN JANUARY		
	1950	1958
Total Patients Admitted for the Month	393 (551)	841 (755)
Patients Admitted for Acute Appendicitis	15	18
Number of Appendectomies	11 (19)	7 (8)
Number of Appendices Showing Suppuration	7 (12)	4 (6)

(Numbers in parentheses represent one-twelfth of the annual total)

Table 3

PATIENTS OBSERVED FOR APPENDICITIS BUT NOT OPERATED UPON

January	Cases	Age	Number of Doctors	Average Stay	Antibiotics Within 6 hours	Subsequent Recurrence
1950	4	13-80	4	4 days	100%	0
1958	11	9-61	8	2 days	18%	18%

Conclusions and Summary

The community of Maryville is an excellent unit for studying medical trends since all needs are centered at the same hospital and cared for by a medical staff which includes all doctors in the community. Through the efforts of the medical staff's tissue committee an annual tabulation of all primary appendectomies was carried out. It has been discovered that there has been about a 50% decrease in the appendectomy rate in the last 9 years and that this decrease has been associated with a proportionate drop in acute appendicitis as well as other conditions in the appendix.

In a sampling of admissions at the beginning and end of the study there was found to be a rise in the number of patients observed for acute appendicitis. The possibility is suggested that some patients get well of acute appendicitis without definitive treatment. On the other hand, it was impossible to show that patients which came

to operation were being watched longer now than previously. Those suspected of acute appendicitis but not operated did not have antibiotics as a reason for their "cure."

Table 4

Year	TIME BETWEEN ADMISSION AND APPENDECTOMY		
	2 Hours or Less	2-6 Hours	More Than 6 Hours
1950	67%	25%	8%
1958	68%	20%	12%

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CASE REPORT

Fibrous Dysplasia of the Skull and Sinuses

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This case is being reported because of the extent of the lesion. I have not found in the literature a report of a case so far advanced as this child.

This tumor has several nomenclatures, among which are: fibrous dysplasia, monostotic or polyostotic, depending on whether one or more bones are involved; it is also known as osteofibroma and ossifying fibroma.

The tumor is not described in great detail in any text on pathology I read. This is probably due to the infrequency with which the diagnosis is made. I have seen only three cases. Two were in females and one was in a male. The disease is supposed to occur predominantly in the female.

From W. A. D. Anderson's book on pathology the following description is taken:

"This tumor gives rise to clinical roentgenologic and pathologic findings that are similar, except for one detail, to the non-ossifying neoplasm, fibroma. As the name indicates, the mesenchymal cells comprising the tumor, possess the capacity to form varying numbers of bony spicules."

An identical neoplasm affecting the jaws has been described under the term fibrous osteoma.

Clinical Characteristics

The symptoms depend largely on the particular bone affected, and the more severe involvements are usually observed in those patients whose history reveals clinical complaints in childhood or adolescence.

Ordinarily, symptoms of pain and a lump are noted when the lower extremities are affected. On the other hand, the condition may be present for years and not be discovered until adult life.

Signs of swelling are usually late, although the general contour of the bones may show some expansion, most readily noted in the ribs, skull and jaws.

Involvement of the long bones with thinning of the cortex may result in patho-

logic fractures, an uncommon complication in the jaw.

The disease may be moderate or severe. It may involve only one limb or all bones. The skull is almost invariably involved.

The various nonskeletal changes appear predominantly in the more severe forms of the disease. Pigmentation of the skin in childhood is concomitant with skeletal lesions. Approximately 50% of patients will present a history of hyperpigmentation, appearing in patches or blotches, yellow brown to dark brown in color. The pigmented areas are most frequent on the scalp, face and neck, or on the thighs and limbs.

The pigmentation in the skin is similar in color to that seen in Von Recklinghausen's neurofibromatosis, but the patches have margins that are irregular rather than smooth.

The premature sexual maturation appears only in females, and is present in approximately 40% of the cases. Catamenia appears at an early age. It is associated with enlargement of the external genitalia and with the appearance of other secondary sex characteristics.

Premature skeletal growth and maturation occurs in severe forms of fibrous dysplasia and closure of the various centers of ossification occurs early.

The affected children are conspicuously large at an early age, but growth not infrequently ceases prematurely and the full adult stature may not be attained because of premature epiphysial closure. Hyperthyroidism has been noted but is usually mild and seldom requires specific therapy.

Diagnosis

A presumptive diagnosis in the moderate and severe forms of the disease offers little difficulty because most of the clinical characteristics are present.

In the least severe forms, when the manifestations are less obvious, the diagnosis is more dependent on adequate X-ray studies and microscopic examination of the tissue removed from accessible lesions.

The usual blood chemical examinations in the study of diseases of bone, show levels within normal limits, with the exception of the serum phosphatase level, which may be

*Read at the meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 13, 1959, Memphis, Tenn.

slightly elevated. However, in no case may the final diagnosis be made safely without biopsy.

This disease must be differentiated from hyperparathyroidism, osteitis deformans, cystic bone lesions of neurofibromatosis and Hand-Schuller-Christian disease in the younger children.

Treatment

Surgical treatment is justified for any lesion giving rise to pain, causing interference with function, or producing deformity. Surgical exposure, curettage and implantation of bone chips are recommended although, if removal is incomplete, the lesion will recur. In the more extensive mandibular lesions and even in moderate maxillary involvement, resection is often necessary.

The tumor is radioresistant, so X-ray therapy should not be used.

Prognosis

The spontaneous disappearance of bony lesions of polyostotic fibrous dysplasia has not been observed, although they may reach a sclerotic state and remain static indefinitely. Local surgical treatment produces excellent results. Rarely sarcomatous changes are seen, but invariably not until many years after the onset.

Case Report

N. J. H., a white 16 year old girl, first seen on March 18, 1957.

The patient came in because of her appearance. Her father said people were always looking at her and asking if she had been in an accident. She had no complaint of pain. She did not have diplopia, although this had bothered her at about the age of six to eight years. The patient said she could see well with the left eye. She could not breathe through her nose.

The parents first noticed the enlargement of the face at about the age of 4 years. This gradually became worse until she was taken to the University of Illinois Research and Educational Hospitals in Chicago on May 1, 1947, at the age of six.

A transcript of the hospital record was sent to me from there. From the record of the University of Illinois, the findings were about the same as on my examination, except they were not so pronounced. At this time she had diplopia in all positions of gaze.

X-ray studies gave essentially the same findings as those made by me and were diagnosed as a mucocele of the frontal sinus on the left. Also,

it was thought the ethmoid cells on the right side were invaded.

A punch biopsy was taken from the posterior ethmoid cells on the left side. A very typical description of fibrous dysplasia was given but the pathologist's diagnosis was a meningioma.

Surgical exploration was done a few days later through a Killen's incision. This revealed a soft, freely hemorrhagic bony tissue apparently originating in the left ethmoidal region and almost filling the left ethmoids, left sphenoid sinus and the left orbit. Apparently no attempt was made to remove the entire growth. (This, I believe, was a mistake.)

The microscopic examination of the tissue was again the picture of fibrous dysplasia, but was again called meningioma.

Biopsy of the granulation tissue in the area operated upon was done on November 8, 1947, and the diagnosis was then changed from meningioma to fibrous dysplasia.

After the operation she showed some signs of a meningeal infection but this cleared up with treatment and her course was not followed further in Chicago.

Examination. When I saw the girl, she was rather short and fat. Her mentality was apparently limited and was in keeping with the rest of the family.

There was a marked swelling involving the left frontal bone, and extending just past the midline. The bridge of the nose was approximately four times wider than normal. The tumor mass could be seen protruding from the left nostril. The left eye was displaced downward, outward and laterally. There was a complete paralysis of upward gaze. (Figs. 1 and 2.) A hard, bony mass could be palpated in the inner and upper portions of the left orbit.

The nasal septum was pushed over to the right by the tumor mass in the left nostril and completely occluded the right nostril. A hard firm tumor filled the left nostril.

The vision was 20/20 in the right eye and 20/25

FIG. 1.

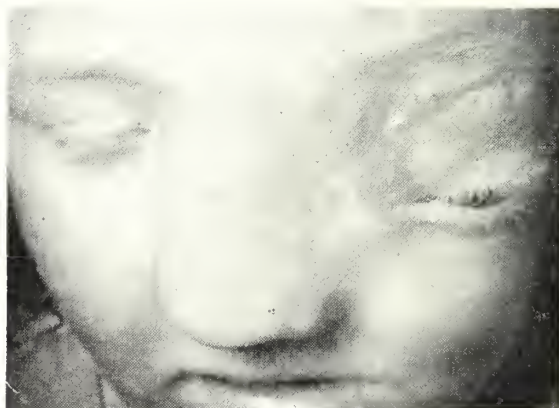


FIG. 1. Before operation. Note marked broadening of the bridge of the nose. The left eye is displaced downward and outward.

FIG. 2.



FIG. 2. Before operation. The tumor mass protrudes from the left nostril and obstructs the air-way on left side. The septum is pushed to the right and obstructs this nostril.

in the left eye for distance and was 14/21 bilaterally for near.

With both eyes open there was no diplopia on straight-ahead vision. The eye grounds showed no changes.

The rest of the ear, nose and throat structures were essentially normal.

X-ray films of the skull were interpreted as follows:

In the left frontal region, extending down into the orbit and displacing the orbit downward, there is a very large tumor which practically fills the nasal canal and obliterates the left antrum. It extends backward from the frontal region about two inches into the cranial cavity. This has the appearance of fibrous dysplasia or fibrous osteoma.

The patient was referred to Dr. C. C. McClure, Jr., neurosurgeon, for consultation. It was agreed that the child should be operated upon as there was a bare chance that she could be benefitted, both in appearance and for a cure.

Treatment. Operation was done on April 16, 1957 at the Baptist Hospital by Dr. McClure and myself.

An incision for a frontal craniotomy was made and the frontal bone exposed. This was found to be almost completely replaced by a bony tumor. This mass removed was about the size of a large orange. After its removal, the brain was lifted up and the entire base of the skull was found to be invaded by the tumor mass. The consistency of the tumor ranged from a hard bony part to a jelly-like portion. A large pan-full of the tumor was removed from the skull. The optic nerves were exposed and followed backward to their junction. They appeared normal. The left frontal bone was almost completely removed, along with a portion of the left parietal bone. A tantalum plate was placed to cover the bony defect and the wound was closed.

I then did a lateral rhinotomy through a Ferguson-type incision and detached the nose from

the face on the left. The left nostril was completely filled with a rather firm tumor mass. When this was removed it was seen that the tumor involved the lateral wall of the nose and the posterior end of the nares was closed by a bony mass. The left antrum was opened and was found filled with the tumor. Also, all the rest of the left maxilla was invaded by the tumor. Another pan-full of tumor was removed from this area. The tumor filled the ethmoid cells and occupied the inner one-third of the left orbit.

I was careful not to remove too much tumor from the orbit as I did not wish to make a communication between the nose and the cranial cavity. Therefore I could not improve the appearance of the nose and eye as much as I would have preferred.

The nose was re-attached to the face and the left nostril packed with zeroform gauze. A firm bandage was then placed over the face. The patient was given three pints of blood while on the table.

She had an uneventful convalescence except for a slight spiking of temperature daily. This was controlled by antibiotics and sulfonamides and she was discharged from the hospital in 10 days. She was kept on Gantrisin tablets, 1 Gm. t.i.d. for several months. (Figs. 3 and 4.)

She developed a draining fistula at both the anterior and posterior ends of the craniotomy wound. This drainage was purulent at the posterior end of the wound and appeared to be spinal fluid at the anterior end of the wound. She had no complaints at this time, however.

She did fairly well until August 19, when she came to the office bleeding profusely from the posterior end of the wound. The wound had separated and the plate was exposed. The bleeding was coming from the temporal artery.

She was hospitalized and soaks applied to the wound. She had no more bleeding, but the wound completely separated and the plate had to be

FIG. 3.



FIG. 3. Postoperative. The nose has been narrowed considerably. The depression over the frontal and temporal regions indicate the amount of bone removed.

FIG. 4.

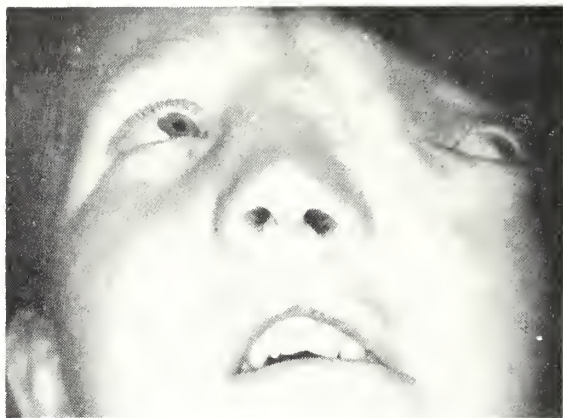


FIG. 4. Postoperative. The nares are well open and the tumor mass has been removed from the left nostril. A much more normal appearance of the nose is now present.

removed. The skin was sutured loosely and allowed to fall back into the cavity. The wound healed and now she has a marked sinking in over the left frontal region. The left nostril was fairly clean and she could breathe through the right nostril.

The patient has been followed at regular intervals since the operation. She was last seen on

January 9, 1959. At this time her father said her memory was failing and she could not remember as well as she had. There was a further increase in the size of the growth around the nose and orbit. The eye was pushed further down and outward. The growth had recurred in the left nostril, almost filling it again. Also, the mass is extending down into the nasopharynx. She now has upward and downward gaze but has limitation of the inward gaze. There was some external deviation of the eye. The left eye grounds showed optic atrophy and chorioretinitis. Vision was 20/20 on the right and 20/100 on the left side. Near vision was 14/28 on the right and 14/35 on the left side.

Comment. While the patients' appearance has not been greatly improved, I do feel that it has been helped somewhat. Also, we have probably prolonged her life, since we reduced the pressure upon the brain and cranial nerves. Since this tumor has such a slow growth, it should be several years before it again reaches the size it was before the operation.

I believe the patients in these cases should be operated upon, even though one cannot remove the tumor mass completely.

Doctors Need Advice, Too

Some time ago, the Medical Society of Hartford County, Conn., studied the county court records, relating to the death and estate settlements of 144 doctors, who had died during a recent twelve-year period.

The results were illuminating; they clearly pointed out that the doctors were evidently the last to take their own health-advice. The death rate of those who died between the ages of 40 and 50 was twice that of the general public. Of those who died between 60 and 70, the death rate was 50% higher.

But what particularly interested us were these facts; nine of ten doctors were survived by their wives, yet one-third left no wills, disposing of their property. What was even more startling was the fact that one out of every three left estates of less than \$10,000. (From the Prudent Investor, Boston, Winter Issue, 1959.)

STAFF CONFERENCE

Vanderbilt University Hospital*

Prolonged Bleeding Time

Case Number 1. DR. RICHARD BIBB: The first case is a 19 year old white college student admitted to Vanderbilt University Hospital for the fourth time because of prolonged bleeding from lacerations and fractures of the first and second toes of his right foot. This trauma was sustained while mowing his lawn with a rotary mower.

The patient was initially seen in 1947 at the age of 7 years, for post-tonsillectomy bleeding which required 13 blood transfusions. Prior to the patient's tonsillectomy he was found to have a prolonged clotting time. The past history revealed that circumcision at the age of 5 days was without undue bleeding. The family history was entirely negative on this score. An older brother was completely normal, without either bleeding or bruising tendencies.

The physical examination revealed only granular, erythematous exudates on the pharynx, the site of tonsillectomy. The bleeding time, platelet count, clot retraction and prothrombin time were all normal. The clotting time was slightly prolonged to 38 minutes. The patient's hospital course was characterized by two to three bleeding episodes from the nasopharynx, which stopped spontaneously. No further transfusions were required.

The patient was readmitted in 1953 for further diagnostic work-up. In 1948, dental extractions were followed by 3 weeks of continual bleeding requiring transfusions for hemostasis. In addition, in the interim the patient had noted frequent epistaxis, ecchymosis and traumatic injury to his left elbow which became hot, swollen and tender, but which subsided spontaneously.

The physical examination on this admission was not remarkable. The clotting time was prolonged to 69 minutes, it having been nearly normal only a month previously. The prothrombin consumption was also markedly impaired at this time, having been only minimally abnormal in a previous determination. The prothrombin time, platelet count, clot retraction and bleeding time remained normal. The thromboplastin generation test revealed this defect was corrected by the barium sulfate treated plasma fraction. In addition, it was found that the patient's plasma did not correct the coagulation defect of a known hemophiliac in this test system. It was therefore concluded that the patient's defect was that of mild hemophilia.

The present admission was brought about when the patient received lacerations to the first two toes of his right foot in an accident with a rotary

lawn mower, 36 hours prior to admission. His bleeding had not been stopped by suturing of the lacerations and packing the wound with gelfoam and a pressure dressing.

On admission, the patient's vital signs were found to be normal. The pertinent physical findings were confined to the right foot which showed amputation of the distal portion of the right great toe and laceration of the distal half of the second toe, which had been sutured back in place but was swollen and erythematous. The course in the hospital was one of progressive oozing of blood from these wounds for the first 12 days, requiring a total of 8 units of fresh whole blood and 17 units of fresh and fresh frozen plasma. After adequate mechanical treatment of the wound sites, consisting of debridement and packing with bone wax over the area of oozing, the distal phalanx of the great toe stopped bleeding. The remainder of his hospital course was uncomplicated. His wound healed well and he was able to retain the distal portion of his second toe. The patient was discharged on crutches after a 25-day hospitalization.

Case Number 2. DR. MOISE A. AXELRAD: This was the first Vanderbilt University Hospital admission of a 31 year old white male tire salesman who entered the hospital for dental extractions. The patient gave a well-documented family history for a sex-linked hemorrhagic diathesis. His maternal grandmother had 4 brothers with bleeding manifestations. A cousin and the son of a maternal first cousin also have a similar bleeding tendency.

As an infant the patient's first episode of hemorrhage consisted of a large hematoma of the scalp, the result of falling from his high chair. He has had epistaxes and hemarthroses on occasions, the latter occurring in the elbows and knees. The most recent bleeding episode involved the left elbow. There had been several episodes of hematuria. He has had carious teeth for the past ten to twelve years.

His past history was otherwise unremarkable. He has had no operations. The patient leads a fairly active life, but states that he takes considerable care to avoid hazardous situations and activities.

The patient was a hypersthenic white man in no distress. There were several small ecchymotic areas scattered over the thighs and legs. The abdomen contained no palpable masses or organs. The extremities were without pallor, cyanosis or clubbing. Muscles and joints were without deformity or limitation of motion.

The initial impression was thought to be that of classical hemophilia. The clotting time was greatly prolonged (88 minutes), with a normal bleeding time, platelet count, and prothrombin time. However, the results of the thrombin generation tests were indicative of a PTC (plasma thromboplastin component) deficiency,—Christmas disease.

In preparation for his first dental extraction, the patient was given 200 cc. of frozen plasma

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and following operation, 500 cc. of fresh blood. There was oozing from the sites of his extractions for 3 days. An additional 3 units of whole blood and 2 additional units of commercially frozen plasma were given postsurgery. Within 5 days his bleeding had ceased completely. On the following morning 4 additional teeth were extracted. After this extraction the patient bled at a greater rate than previously. In the next 5 days he received a total of 8 units of whole blood and 4 units of commercial frozen plasma. Postoperatively the patient developed left facial swelling which extended to the left orbit. Ten days following his second extraction the patient had stopped bleeding completely and was discharged.

DR. JOHN M. FLEXNER: These 2 cases serve to illustrate certain difficulties in dealing with defects in normal blood coagulation. While the second case presents a well-documented family history for hemorrhagic diathesis, the first case offers no such history. It will be the purpose of the presentation this morning to briefly discuss how we characterize the coagulation defect to its specific etiologic deficiency. Secondly, how to differentiate these deficiencies which clinically appear to be similar. Lastly, the treatment of these respective bleeding disorders.

Figure 1 depicts a scheme of coagulation.

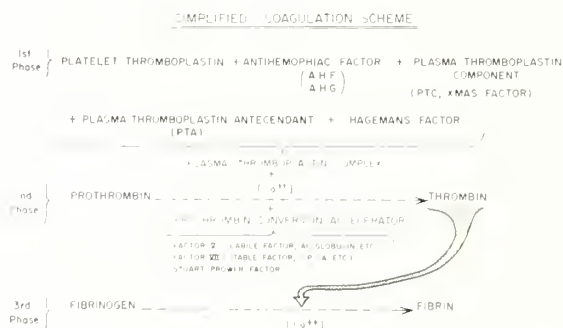


FIG. 1

This scheme has been divided basically into 3 phases or steps in blood coagulation. The first phase is concerned with the formation of the plasma thromboplastin complex. The following contribute to this complex: platelet thromboplastin material, antihemophilic factor (AHF), plasma thromboplastin component (PTC or Christmas factor), and two other factors, plasma thromboplastin antecedent (PTA) and Hageman's factor. It is the deficiency of AHF that leads to the clinical picture of classical hemophilia, so-called hemophilia A. A PTC deficiency results in Christmas disease, the name Christ-

mas originating from one of first families in which this defect was noted.

The second step in coagulation is concerned with the conversion of prothrombin to thrombin. This reaction requires plasma thromboplastin and calcium. In the presence of the prothrombin conversion accelerators, the reaction proceeds at a fairly rapid rate. These accelerators are Factor V (labile factor or accelerator globulin), Factor VII (stable factor or serum prothrombin conversion accelerator) and lastly the more recently discovered Stuart-Power factor. Prothrombin is then converted to thrombin which catalyzes the production of fibrin from fibrinogen. The latter is the final step in this complex mechanism.

The 2 patients presented have defective coagulation systems characterized by a deficiency of the first phase of the reaction. Clinically Christmas disease and hemophilia A may be so similar that it is only by means of the more refined coagulation techniques that they can be distinguished. The outstanding feature of both these patients was uncontrollable bleeding associated with trauma. In the first case accidental and the second surgical. Common to both of the cases was a prolonged clotting time. In the first case this seems to be a rather mild defect without a family history, while in the second case the coagulation defect has the more classical genetic pattern. It is only when one employs the thromboplastin or thrombin generation tests that these two deficiency states can be characterized. These defects are called true hemophilia, or hemophilia A and plasma thromboplastin component deficiency, Christmas disease, or hemophilia B. It is usually thought that the ratio of classical hemophilia to Christmas disease is around 7 or 8 to 1. With the discovery of the Christmas factor by Aggeler in 1952^{1, 2}, it was noted that cases which previously had been described as classical hemophilia were now found to represent Christmas factor deficiency. Like true hemophilia these individuals may have a mild, moderate or severe defect with the resultant crippling hemarthroses and bleeding. Both of these disorders are characteristically sex-linked, recessive, the female being the carrier of the defective gene and

the male manifesting the clinical symptoms.

In both these conditions the following are normal,—bleeding time, platelet count, clot retraction and platelet morphology. In addition prothrombin, accelerator globulin, proconvertin and fibrinogen concentrations are likewise normal. The partial thromboplastin time, using cephalin as the partial thromboplastin, shows prolongation. The degree of impairment of the last test can be correlated with the severity of the deficiency state.^{1, 2}

The thrombin generation test (according to the method of Sjölin¹ is used in our laboratory to differentiate these disorders. For convenience we find this method not as cumbersome as the more tedious thromboplastin generation test. The mechanics of

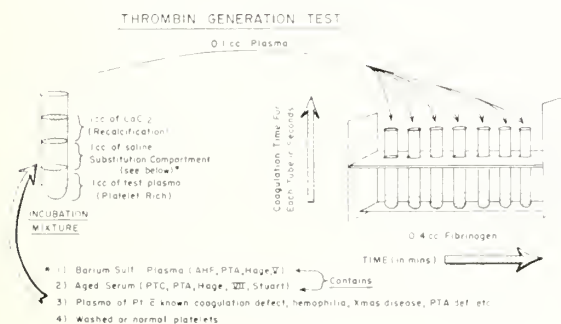


FIG. 2

the test are seen in figures 2 and 3. Three compartments are noted in the incubation tube. These consist of 1 cc. of platelet-rich plasma, the platelet count being adjusted to a standard range of approximately 200,000 platelets cu. mm. Secondly, a substitution compartment (which initially contains only saline for dilution reasons) and lastly, 1 cc. of 1/10 M. calcium chloride, required for recalcification. Following the addition of calcium chloride, aliquots of plasma are removed at given time intervals and placed into bovine fibrinogen. The time required for each tube of fibrinogen to clot is then recorded. In figure 3 one sees in the cross-hatched area the range of normal recalcification time. It is within this range that thrombin generation reaches its peak (solid line). In figure 2, that of the mechanics of the thrombin generation, one notices that the substitution compartment contains basically 4 different things: (1) barium sulfate treated plasma; (2) aged serum; (3) the

plasma of a patient with a known coagulation defect such as hemophilia, Christmas disease, (PTA) deficiency, etc.; and (4) normal or patient's washed platelets. Today's cases represent deficiencies of the first phase of coagulation. This is confirmed by the lack of detectable evidence for a platelet defect, normal prothrombin time and an adequate fibrinogen content of the plasma. In addition, from the family history of these 2 patients, one may have clues as to the sex-linked recessive nature of these deficiencies, as opposed to the autosomal dominant deficiency, characteristic of PTA and Hageman's factor. The family history noted in the second patient leaves little doubt that this is either true hemophilia or Christmas disease. However, the story in the first patient is not clear cut. Therefore, after doing the baseline thrombin generation test in these patients and getting a flat curve, as seen in the dotted line in figure 3, we then

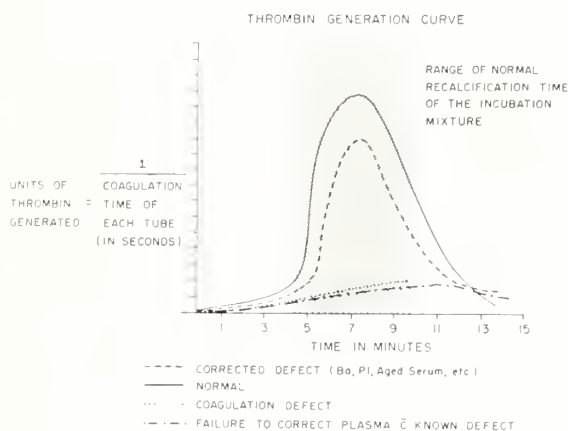


FIG. 3

undertake to correct this deficiency in one of two manners. It is known that barium sulfate selectively removes certain coagulation factors, namely Christmas factor, prothrombin, Factor VII and Stuart Factor. Plasma treated with barium sulfate must be made fresh or must be fresh and then immediately frozen. As we shall discuss very shortly, antihemophilic globulin or factor is extremely labile and must be kept in the cold when one is working with the factor, hence it must be refrigerated or frozen at all times to maintain its stability). Following treatment with barium sulfate, the antihemophilia factor, PTA, Hageman's and Factor V remain in the plasma. In both

the cases presented we are concerned only with the first phase of coagulation. Therefore, if barium sulfate treated plasma corrects the deficiency *in vitro*, one would assume that this is a deficiency of AHF, PTC, or Hageman's. To rule out the latter two deficiency states we rerun the thrombin generation using aged serum.

Aged serum, unlike barium plasma, lacks all the labile coagulation factors, those factors that are utilized during coagulation. This would leave Christmas factor, PTA, Hageman's, Factor VII and Stuart Factor. Consequently, a recessive sex-linked deficiency of the first stage, corrected by aged serum, strongly suggests a deficiency of Christmas factor. However, PTA and Hageman's must here again be ruled out. Barium plasma and aged serum were tested in both these patients. A correction of the degree one sees in the hatched line in figure 3 was found with barium plasma substitution in the first case and with aged serum substitution in the second case. Neither case was corrected by both barium plasma and aged serum; good confirmatory evidence against either a PTA or Hageman's deficiency. This evidence would seem to be diagnostic in both these patients.

However, substitution with plasma of a known deficiency state is required for definitive proof. The latter method is by far the best proof of the nature of any deficient factor. In the first case in which classical hemophilia was suspected, correction by plasma treated with barium sulfate and not aged serum made this diagnosis seem most likely. However, it is not until substitution of plasma from a patient with known classical hemophilia and Christmas disease was undertaken that the diagnosis was confirmed. The failure to correct this patient's plasma with the plasma of a known hemophilic (dotted and hatched line in figure 3) would make the diagnosis of classical hemophilia in the first case final. In addition, it is always good to show that plasma from another first stage deficiency state, i.e., Christmas disease, corrects the defect in the classical hemophilic. Likewise in the patient with Christmas disease, plasma from a patient with known PTC deficiency failed to correct this defect and the generation of

thrombin peaks in a normal range when one uses plasma from a patient with classical hemophilia. In this manner the deficiencies in these patients are diagnosed. The anti-hemophilic factor and PTC assays, which quantitate the degree of the deficiency in these patients, is the last step in the evaluative process.

It is known from the work of Graham and others¹⁻⁴ that hemophiliacs with levels of assayable AHF as high as 40%, bleed only with severe traumatic injury. Those in the range of 15 to 20% of antihemophilic globulin were considered to be "troublesome bleeders," but not dangerous. Persons with levels in the range of 5% or less bleed spontaneously or massively. It would, therefore, be our therapeutic plan to try and maintain our level of assayable AHF in these patients, during bleeding episodes, greater than 5% and, if possible, in the range of 10 to 15% or greater. Plasma has its highest antihemophilic content when it is fresh. Freezing or lyophilizing drops the content sometimes below 50% of the original activity and thereafter, due to its extreme lability, activity falls off as a function of time. The use of fresh plasma in lots of 100 to 150 cc. given as fresh as possible has been found to be the most effective therapeutic method. From the work of Brinkhous¹⁻⁴ and others we know that the half-life of injected antihemophilic globulin after initial loading doses of plasma, ranges somewhere between 8 and 12 hours. A rough rule of thumb for plasma therapy in true hemophilia is that to increase the antihemophilic activity of the patient 1%, one must give approximately 1 cc. of fresh normal plasma per kilogram of body weight. However, when there is severe tissue damage, as in our first case, antihemophilic activity turnover may proceed at an even more rapid rate. Because of the lability of this globulin, 100 to 150 cc. is given every 6 to 8 hours. The longer the plasma stands at room temperature, the quicker it loses its activity, consequently, it should be given as rapidly as possible.

When a patient with hemophilia is bleeding vigorously, as in the first case, all the mechanical methods available to insure complete hemostasis should be tried. At

the same time around-the-clock transfusions with fresh plasma every 6 to 8 hours is initiated. Because of the lability and the rapid decline in activity, plasma transfusion therapy should be continued for at least 36 to 48 hours, depending upon the patient's response to therapy as well as the laboratory evaluative index. During this time the most convenient method for following these patients in the laboratory is the partial thromboplastin time. In a normal individual the partial thromboplastin time varies between 60 and 90 seconds. An individual with mild hemophilia, as our first case, would have a partial thromboplastin time of around 120 to 130 seconds, whereas the second case with a more severe deficiency state the time may be as high as 280 to 320 seconds. With the use of adequate plasma therapy, the partial thromboplastin time usually drops to near normal or normal ranges. As treatment is discontinued, a return to the previously prolonged range is noted. The Chapel Hill group has shown that the partial thromboplastin time in true hemophilia is about as sensitive as the thromboplastin or thrombin generation test,¹ as far as reflection of percentage of available antihemophilic factor. Actually, aside from the AHF assay itself, this test ranks second in sensitivity. This test is therefore ideal for following these patients during transfusion therapy.

The therapy of individuals with the Christmas factor deficiency is not as complex, since PTC is relatively stable in plasma stored for as long as a 3 week time period. Fortunately, this factor is relatively stable. It is not necessary to be as fastidious in selection of plasma or whole blood in treating these patients. It is also known that the biologic half-life of the Christmas factor in transfused plasma or whole blood is more pronounced and of a longer duration. Correction of this defect may last as long as 5 days to 3 weeks in some patients, a striking contrast to that found in classical hemophilia. The relatively low rate of crippling hemarthroses and fatal complications in Christmas disease are thought to be a reflection of this fact. Here again one can follow the degree of therapeutic efficiency by means of the partial thromboplastin time.

The first patient presented has such a mild deficiency that he has virtually led a normal life. He has played basketball and other sports in which body contact has been sustained, in spite of repeated warnings to the contrary. It was not until the present severe trauma that he has finally become aware of the limitations associated with his basic coagulation defect. On this admission he was quite a problem in management in spite of good transfusion therapy and a relatively good percentage of antihemophilic globulin, as determined by the partial thromboplastin time. It was not until complete debridement of his wound and the application of bone wax and mechanical hemostasis that bleeding ceased. So often these individuals with hemorrhagic diathesis in which complete surgical or mechanical hemostatic methods have not been efficiently used are referred to the hematologist. One cannot stop bleeding of this nature by transfusion therapy alone, if local hemostasis has not been accomplished by the best medical and surgical methods. In our first patient, hemostasis was accomplished by mechanical means as well as by transfusion therapy. In the second patient, following dental extraction, thrombin gelfoam sponges were sutured into his sockets and this procedure, in addition to transfusion therapy, contributed to his hemostasis.

In summary, we have seen two patients who presented with traumatic bleeding. Both patients had hemorrhagic defects characterized by prolonged bleeding times, abnormal prothrombin utilization, and abnormal thrombin and thromboplastin generation. The mechanism of the thrombin generation test was reviewed and the role of barium sulfate treated plasma and aged serum explained. The diagnostic criteria for making a diagnosis of a first stage defect were discussed. The value of substitution of plasma from a patient with a proven deficiency state was reviewed. A good family history for hemorrhagic diathesis was obtained in our second case, which was noted to conform to a sex-linked, recessive pattern. No such history could be obtained in the first case. The first case was characterized by a very mild defect with bleeding associated only with severe trauma. Trans-

fusion therapy of hemophilia and Christmas disease was discussed in light of the relative stability of these two factors. The partial thromboplastin time as a method of evaluating therapeutic effectiveness was mentioned. Lastly, the need for mechanical control of bleeding and general education of the patient with coagulation defects was touched upon in hopes of avoiding the situation encountered by our first patient.

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President's Page



HARMON L. MONROE

One of the victims of the changing patterns of our time is the concept of the family doctor. The family doctor has not vanished from the scene, but I do suggest that the concept itself is disappearing.

Not too many years ago, the average patient held a composite view of his doctor as a medical seer, family counselor, and friend. He was a man to be depended upon to minister to the ills of the members of the family irrespective of time, distance, or weather conditions. True, his scientific skill was limited, but for this he compensated by rendering a warm personal service to his patients. Because of this, there existed a close and unique relation-

ship between the doctor and his patients. He was held to be all-wise, all suffering, and all-serving.

Now this concept is being altered by several factors: modern transportation; the shift in population from rural to urban; the shortage of doctors in some areas which results from distribution. Unfortunately, these factors are irreversible.

But there is another factor which we must recognize and strive to alter. It is the tendency on the part of too many of us to concern ourselves only with the symptomatic aspects of our patients instead of regarding the patient as a whole person, one who needs more than just medical treatment.

It may well be that most of medicine's public relations is established between the individual doctor and his patients. If this is the case, then consider the effect on medicine's public relations when the doctor presents himself to his patients as a professional man of the highest order, but too busy or too aloof to interest himself in the patient as a person.

When such an attitude exists, the patient finds himself reluctant to confide in the physician; his confidence is not inspired; a barrier is established instead of a close doctor-patient relationship.

It is not enough that medicine points to its accomplishments. Statistics proving lower mortality and morbidity are no substitute for sympathy. Antibiotics can never take the place of understanding.

Medicine enjoys its position of esteem largely because of the close relationship which has existed between doctors and their patients. From this relationship has come confidence in the individual physician which has been extended to embrace medicine as a profession.

Our profession is under attack on many fronts. There are those who would replace the free enterprise system of the practice of medicine with socialism. There are certain paramedical groups constantly attempting to further encroach upon the field of medical practice. We, as a profession, can successfully resist these efforts only so long as the people of this nation receive the type of medical care to which they are entitled. One of our most potent weapons is the principle of the doctor-patient relationship, and the argument that any tinkering with the free enterprise system will result in damaging or destroying this relationship.

Our argument is sound, as long as the term "doctor-patient relationship" is meaningful in the sense from which it was derived. Let us, then, strive to improve this relationship in our practices, so that we may be, in the words of the Oath of Hippocrates, "respected by all men—in all times."

H. L. Monroe, M.D.

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JANUARY 1960

EDITORIAL

INVESTIGATION OF THE DRUG INDUSTRY

The recent investigation of the drug industry by the government has created, in the public press, a tremendous volume of statistical information. Although the evidence naturally gives both favorable and unfavorable viewpoints as regards the drug industry, the majority of the data may be classified as uncomplimentary. One of the star witnesses for the Kefauver committee was the editor of the Journal of Chronic Diseases. Inasmuch as he is a recognized associate and assistant professor of medicine and pharmacology, and experimental therapeutics, in the Johns Hopkins University School of Medicine, his comments are to be heard with respectful interest. Lasagna bearded the lions in their den in April 1959, when he gave an address before the Pharmaceutical Manufacturer's Association, pub-

lished now as the Editorial in the Journal of Chronic Diseases.¹

He points out that the advertising technic of the drug houses is often of a sleazy type; the lifting of favorable comments out of text, thus avoiding the unfavorable remarks; the "pharmaceutical numbers racket," in which a drug is favored by virtue of its smaller effective dosage even though it actually does no more than any other agent; the circulation of reprints of work done at large and famous institutions; the back-biting engaged in by detail men (this I have never observed); the employment of medical students for summer time detailing jobs, in order to get a "foot in the door" of the busy doctor; the "new drugs" put out each year which are actually not new drugs but simply combinations of different drugs in a slightly different ratio than that of a competitive firm; the withholding of information of investigative progress while the doctor is continuing his honest attempt to understand the effects of a given agent, and by doing so incurs possible medico-legal responsibilities that could have been avoided; and the rumor encouraged by the pharmaceutical houses that duffers and second-raters remain on the university faculties while the top-flight pharmacologists and investigators are working as full-time employees of the various pharmaceutical houses.

Lasagna believes that drug houses are usually invited and urged by doctors to give food and drink and subsidize various medical gatherings, and they are not guilty of being the primary instigators of this type of expensive propaganda-advertising. He properly believes that the drug houses are entitled to a profit and certainly, and we all agree to this, they are not in business primarily for the public welfare but, on the contrary, are a business group beholden to its stockholders for a well-managed and profitable operation.

Lasagna points out that a good deal of unfortunate medical journalism exists. A reporter anxious to make good headlines often sends to the press reports which are inaccurate, misleading, sensational, and unfair to the individual who is being quoted. This fault with journalism needs to be corrected by that fraternity; otherwise, they

¹Lasagna, Louis: Gripesmanship: A Positive Approach. J. Chron. Dis. 10:459, 1959.

may become *persona non-grata* at medical meetings and in scientific laboratories.

As doctors, we must remember that when a "detail man" begins his conversation by giving a ball-point pen, a pocket flash-light, samples of his wares, or an invitation to take an all-expense-paid trip to his home office, someone is paying for this, and this amount must be included in the product he sells. Nearly all the detail agents are pleasant to meet and respectful of the physician's time and demands of practice.

Most doctors have a sense of despair as they dump unread, each day, massive amounts of multicolored folders and brochures containing claims by the various drug houses, into the waste basket and sigh at the waste of money (many millions) and effort that is going on in this area of advertising. This method of advertising could and should be dispensed with. It is as ineffectual as any advertising effort I know.

We remember, with a feeling of gratitude, that Penicillin appeared on the commercial market at a cost of about \$4.00 per 100,000 units, and now 100,000 units sells for about 2-3 cents. However, the continued uniformity of cost by all drug houses of their particular brand of tetracycline at about 50 cents per capsule, is alarmingly reminiscent of the identical bids submitted by "competitive" engineering companies for construction of T.V.A. turbines, which amount to tens or hundreds of millions of dollars yet agree to the last penny in the estimate. The conclusion drawn is obvious.

The current investigation of the drug industry probably is colored by many political implications, but nonetheless it helps focus attention on one of the current most urgent economic problems, the high cost (drug cost alone \$4,000,000,000) of being sick.

A. W.



SHOULD DOCTORS BE POLITICALLY ACTIVE?

The Honorable Thomas B. Curtis, a Representative from Missouri and member of the House Ways and Means Committee before which the hearings on the Forand Bill were held, believes doctors should take an active part in politics. He addressed the

Iowa State Medical Society on this subject.¹

He points out the unfortunate fact that too many of our citizens regard politics and politicians as a questionable activity and as shady characters, respectively. Likewise he defines lobbying as a very essential ingredient in good representative government. The Honorable Mr. Curtis emphasizes the sagacity of the writers of our Constitution when they wrote into it the right of the people to petition Congress,—this right is the *lobby*. The only miscarriage of lobbying, he indicates is in terms of technics, implying the use of underhanded or dishonest methods of influencing our lawmakers.

The Congressman then urges that "good people" become active in politics, and if they hesitate to do so, he says: "They haven't realized the very basic truth that if we are to preserve liberty, we can do so only by exercising eternal vigilance. And if we are going to have government *by* the people, the people must partake of it. And if government *by* the people goes by the boards, I can assure you that government *for* the people will eventually disappear, too." He goes on to add: "It isn't a question of whether we have the time to be politically active; the question is whether we can afford *not* to take the time, and we cannot if we are to preserve our representative form of government."

The telling point he made was relative to the budget. He recalls the earlier philosophy of governmental taxation of the rich to help the poor. This was at a time when the wealth was in the hands of a few. But the facts are so different now, with a more even distribution of wealth, as shown by the fact that 70% of people own their homes. The federal tax now rests on most of the population. Mr. Curtis says Congressmen hope people are recognizing these facts and will wish for a balanced budget and will oppose *that* federal taxation which is unrelated to federal spending. He believes that organized medicine has accomplished much in the past year in changing an emotional reaction of considering disease an enemy against which federal funds must be used,

¹Curtis, Hon. Thomas B.: Doctors Must Become Politically Active, J. Iowa State Med. Soc. 49:719, 1959.

to a more rational viewpoint on the "merits and demerits of federal expenditures in these areas." People may learn to evaluate federal expenditures not as invariably beneficial, but as possibly harmful to themselves personally. In other words, they will learn that their taxes must pay the bills—since someone must pay the bills.

The Honorable Mr. Curtis believes that the approach to the prevention of federal expenditures in the medical area will need to be with positive plans from the medical profession and the insurance companies. He properly points out that the remarkable advances made in the extension of life were made under a private medical profession, private hospitals, private funds and a private pharmaceutical industry. These very advances have actually created some of our current difficulties,—i.e., a large aging population.

The private insurance companies have done an increasingly good job of covering the field of health insurance. This means also the forming of capital. If the government goes into the insurance business it can raise capital only by taxation,—and thus will withdraw both capital and the insurance operation from the tax base, which actually will reduce taxable income.

Mr. Curtis believes that indigency should not becloud the issue. The indigent make up a small percentage of the people. Much of this will be taken care of by the economic development of poor areas and rising income. But some indigents will always be with us and should be cared for on a local level as in the past,—more efficiently and economically.

The Congressman urges the good people to let their political voice be heard in this year—the "political year."

R. H. K.



PHYSICIANS SIGNING UP FOR PRACTICAL POLITICS COURSE

Of interest, as related to the above editorial comment, is the growth of the "Action Course in Practical Politics" over the face of the nation, since its initiation about a year ago by the Chamber of Commerce of the United States.

It is estimated that some 30,000 persons

have taken part in courses which consist of nine two-hour group discussions, 12 to 20 people participating in each group. These courses have been conducted for approximately 5,000 groups of citizens under the sponsorship of 900 Chambers of Commerce, business firms and other community organizations. There have been 25 groups of physicians organized under this drive by the Chambers of Commerce. In some areas the League of Women Voters and the Junior Chamber of Commerce have been active in this program.

The "Action Course in Practical Politics" is an educational program and has been endorsed by both the Republican and the Democratic National Committees, since it is non-partisan in its educational aspects. Certain congressmen also have endorsed this program. (From comments made in the above editorial I suspect that many of our senators and representatives wish that they had equal pressure applied by what the Representative called "the good people" of the community, from whom our representatives in Washington practically never hear, as well as from highly organized groups.)

It is quite obvious that both our Washington representatives of the people, the major political parties, and the "good people" of the Country appreciate that if the voice of the latter is to be heard at all, some organization is necessary. One need not point to certain highly organized segments of the population who in their organization are in the "driver's seat" insofar as lobbying is concerned and their influence on legislation. The people's representatives in Washington can remark both truthfully, and probably bitterly on the side, that they must vote as their constituents request, but that the requests are all one-sided, and they therefore have no other alternative than to vote in terms of the pressures applied.

The "Action Course in Practical Politics" apparently is paying off in businessmen and other "good people" getting into politics on the precinct level.

As was noted above, this is *the* political year.

R. H. K.

Special Item

The Role of the Licensed Practical Nurse in the Hospital*

Howell H. Sherrod, M.D., Johnson City, Tenn.

For many years all the nursing duties in the hospital were carried out by the Registered Nurse. These duties were all inclusive and ranged from cleaning the floors to assisting the doctor in highly specialized operations. The Registered Nurse has done far more in the past than she is able to do in the present day hospital program. It has been necessary to utilize the services of many other people to give the desired and expanding care the patient in the hospital requires. In addition to the Registered Nurse there are the nurses' aids, laboratory technicians, X-ray technicians, orthopaedic technicians, the hospital attendants, ward clerks, diversified occupation students, and in some instances others. One of the more recent additions to the personnel of the hospital is the Licensed Practical Nurse.

The State of Tennessee has 4,450 practical nurses licensed as of September 1, 1959. Actually since 1946, when the first State Board Licensing examination was held there have been 5,038 persons licensed in Tennessee. Not all of these Licensed Practical Nurses work in hospitals, some are employed in nursing homes, doctors' offices, private homes and similar institutions.

There are currently eleven schools of practical nursing in Tennessee approved by the Tennessee Board of Nursing. The first schools were established in 1947 in Nashville and in Kingsport. There are now schools at Memphis, Jackson, Chattanooga, Knoxville, Fayetteville, Greeneville, and Johnson City. Nashville has three approved schools. A few other schools have been conducted elsewhere for a period.

The history and early growth of the National Association for Practical Nurse Education has been well explained in the publication, "Practical Nursing," October, November, and December, 1955. Considerable effort has been given to set out a curriculum for teaching practical nursing. This has been revised several times but in gen-

eral now includes a thirteen months training period. A pre-clinical period of organized classroom instruction of some fifteen (15) weeks is given. This provides 450 hours of instruction. Then clinical experience of at least twenty-four (24) weeks in a general hospital. This must include 8 weeks each on the medical and surgical services and 4 weeks each on the obstetric and pediatric services. Twelve weeks additional experience shall be provided and may be in a special area. A total of 100 hours instruction must be given concurrently with clinical experience.

At the recent meeting of the American College of Surgeons in Atlantic City numerous presentations were made concerning the prevention and handling of infection in hospitals. No less than fourteen papers were concerned with this problem of infections and four scientific exhibits and several movies dealt primarily with infections. It behooves each one of us to re-appraise this condition and review the causes and method of spreading infections and to see what we can do individually about this which at times is a very serious situation.

Every person working in and about the hospital has a responsibility of preventing the occurrence and also help to prevent and control the spread of infection.

When a person has an infected area or wound, extreme care is needed to prevent these bacteria from causing other infections. The dressing from the wound must not be placed on the floor or left in an open bucket. This would only allow the broom or mop to transfer these germs to the hall, other patients' rooms, etc. The circulating air picks up these germs and carries them onto "clean" linens in the next patient's room. Even the uncovered stretchers of linen from the laundry thus get contaminated before they are delivered to the place they will be used. Shaking dust from bedspreads, sheets, towels, and other objects can spread bacterial contaminated particles to other areas. Sometimes bacteria from the mouth that are pathogenic may be poured back from a drinking cup into the water pitcher and these germs multiply and cause further disaster.

*Read at the meeting of the Tennessee Licensed Practical Nurses Association, November 6, 1959, Kingsport, Tenn.

We occasionally get a sense of false security when patients receive penicillin or other antibiotics. One must remember, there is no substitute for sterile technique.

Many of you work around sterile supplies and one break in technique may cause an infection in an otherwise clean shoulder or knee joint. We must realize the importance of every phase of our work.

Anyone who has an infection on the finger or hand should avoid handling food until this has cleared up. He should not take any chances of spreading this infection to anyone.

We tend to talk very little about our personal habits, but this too can be a major cause of infection. Our own cleanliness of body and the use of soap and water for our hands should be carried out frequently.

There are many, many other ways in which infection can spread in hospitals. Recognizing that we need to not only be aware of these problems, but to be doing something to help prevent them, let us consider a positive approach. Nothing will prevent progress more than the three I's—IGNORANCE, INDIFFERENCE, AND INTOLERANCE.

We have in The Tennessee State Department of Education a leader who is rendering a great service in helping us to eliminate IGNORANCE. Mr. W. A. Seeley, who is the State Supervisor of Trade and Industrial Education, has done a great deal to help promote a worthwhile program for the Licensed Practical Nurses of Tennessee. At the present time, he is pushing for further courses and training for the graduate Licensed Practical Nurse. In Johnson City, plans are being formulated for teaching operating room techniques, general surgical and aseptic technique, medical nursing, pharmacology, care of obstetrical patients and well baby care. Many other possibilities can be foreseen. All of us must continue to improve our education. We must learn the meaning of medical terms, we should read such nursing journals and other medical literature that we will understand our work better. We need to keep up with the various new methods and interpretations to apply ourselves better.

The only way we can combat INDIFFER-

ENCE is for each of us to take a personal inventory. Why pick up a dirty dressing with gloves—it may not matter. Why should I wash these dirty instruments—I'll leave them for the next shift. Why should I go get a bar of soap for the patient—let Georgia do it. Why should I test the rubber glove before putting up a sterile pack—one tiny hole won't make much difference. Why should I tell the doctor I accidentally contaminated his sterile table—he might fuss at me. Let us not forget our real goal—the care of sick and injured persons to the best of our ability.

Finally we must avoid INTOLERANCE. We must be tolerant of our fellow worker who accidentally makes a mistake. Help him with things you understand better and listen to him when he offers you suggestions. Each person can make a worthwhile contribution to our society. Some are good at one thing, some another. We must learn to be more tolerant of the other fellow's thinking, as well as his actions. He may have good reasons for doing and saying certain things. Harmony in our own workshops makes for greater success. Let me encourage you to push forward and upward.

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3. Miss Golden Williams., Secretary-Consultant Tennessee Board of Nursing. Personal communication.
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5. Seeley, W. A.: *Training for Registered Practical Nurses*, J. Tennessee M. A., 1947.
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DEATHS

Dr. John D. Capps, 75, Livingston, died on December 7th at his home.

Dr. Archibald Charles Bailey, 92, Nashville, died on December 14th at his home.

Dr. Lewis R. Anderson, 69, Gainesboro, died on December 14th in Jackson County Hospital.

Dr. J. Harley Harris, 67, Memphis, died on November 29th at Methodist Hospital.

Dr. Henry A. Callaway, 64, Maryville, died December 6th at his home.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Chattanooga-Hamilton County Medical Society

The regular meeting held on December 1st in the Interstate Building had the following scientific program: "Uric Acid Metabolism and Stone Formation," by Drs. E. White Patton and Dewitt B. James; "Cine Radiology" was the topic presented by Dr. Charles W. Reavis; and an interesting case report was presented by Dr. Jesse L. Williams, Jr.

On December 8, 1959, the annual election of officers for 1960 was held. Dr. Augustus McCravey, neurosurgeon, was elected by the Society as president-elect for 1960. Dr. George Henshall, Jr. is president for 1960.

The Society named Dr. Chas. W. Hawkins, to succeed Dr. Harry A. Stone as secretary-treasurer. Dr. Frank Graham was elected to the Board of Censors to succeed Dr. McCravey. Others elected to the Board were Dr. J. Marsh Frere and Dr. Harold Starr. Dr. A. M. Patterson was elected to the Board of Governors to succeed Dr. Fred E. Marsh. Dr. D. Isbell and Dr. Wm. J. Sheridan are other members of the Board of Governors.

Nashville Academy of Medicine and Davidson County Medical Society

At the dinner meeting on January 12, at the Andrew Jackson Hotel, Dr. Rollin A. Daniel, Jr., retiring president spoke briefly. Dr. Thomas S. Weaver assumed the office of president for 1960, addressing the Society on "Dr. Felix Robertson—His Life and Times." Officers elected by mail ballot in December are as follows. Dr. Laurence A. Grossman has been named president-elect. Dr. Addison B. Scoville, Jr. was re-elected to the Board of Directors, and Dr. Douglas Riddell was re-elected secretary-treasurer. Dr. F. T. Billings was elected to the Board of Directors. These officers with the retiring president and Drs. Walter Dively, Robert

Finks and Joseph Ivie constitute the Board of Directors for 1960.

Knoxville Academy of Medicine

The Society held its regular monthly meeting on the evening of December 15th in the Academy building. The program included the installation of officers for 1960. Dr. Chas. C. Smeltzer was installed as president to succeed Dr. John D. Moore. A year-end activities report was rendered from all committees of the Academy.

Robertson County Medical Society

The Society conducted its regular monthly meeting at the Jesse Jones hospital on November 17th. Dr. W. D. Wadlington, Donelson, presented the scientific portion of the program. Election of officers for 1960 was held. Dr. Elmer E. Bottsford, Ridgetop, was elected president, and Dr. W. P. Stone secretary-treasurer.

Consolidated Medical Assembly of West Tennessee

The Society's regular meeting was conducted in the New Southern Hotel on December 1st. Dr. George Spangler of Humboldt was elected president succeeding Dr. John C. Thornton, Jr. of Brownsville. Other officers elected were: Dr. Leland Johnston, Jackson, 1st vice president; Dr. Oscar McCallum, Henderson, 2nd vice president; and Dr. Charles Hickman, Bells, 3rd vice president.

Dr. G. B. Wyatt, Jackson, was re-elected secretary.

The program consisted of a discussion on the Forand Bill by Dr. John D. Hughes of Memphis and Mr. Jack Drake, Public Service Director of TSMA.

Greene County Medical Society

The Society met in regular session on December 1st at the Elks Club Dining Room. Reports were given by Drs. Rae B. Gibson and L. E. Coolidge, delegates to the special meeting of the Tennessee State Medical Association's Legislative Committee in Nashville on November 15th.

Officers for the year 1960 were elected as follows: president, Dr. Rae B. Gibson; vice president, Dr. Ben J. Keebler; and secretary-treasurer, Dr. Luke Ellenburg.

Roane County Medical Society

Members of the Society elected new officers at a recent meeting. Chosen as president for 1960 was Dr. Harold Steffee, and Dr. Gould Andrews was named vice president. Continuing in office for another year is Dr. B. W. Sitterson as secretary-treasurer. Dr. Dana Nance and Dr. Louis Killiffer, Harriman, continue as delegates to the TSMA. Dr. Fred Hooper, Harriman, is a new member of the Board of Censors.

Memphis-Shelby County Medical Society

The Society met in regular session on November 3rd at the Institute of Pathology. The scientific program was sponsored by the Shelby County Tuberculosis Health Association. Dr. Otis S. Warr introduced the guest speaker, Dr. H. McCleod Riggins, associate clinical professor of medicine at Columbia University. Dr. Riggins discussed "Chemotherapy in Tuberculosis." A brief question and answer period concluded the program.

NATIONAL NEWS

Report on Actions of the House of Delegates, American Medical Association Thirteenth Clinical Meeting December 1-4, 1959 Dallas, Texas

Freedom of choice of physician, relations between physicians and hospitals, a scholarship program for deserving medical students and relative value studies of medical services were among the major subjects acted upon by the House of Delegates at the American Medical Association's Thirteenth Clinical Meeting held December 1-4 in Dallas.

Dr. Chesley M. Martin of Elgin, Okla., was named as the 1959 General Practitioner of the Year for his outstanding contributions to the health and civic affairs of his home community. Dr. Martin, who has practiced in Elgin for the past 44 years, was the 13th recipient of the annual award and the first Oklahoman to be so honored.

Speaking at the Tuesday opening session of the House, Dr. Louis M. Orr of Orlando, Fla., A.M.A. President, urged the nation's physicians to take a more active interest in the whole area of politics, public affairs and community life. Dr. Orr also asked physicians and medical societies to do a more effective job of telling medicine's positive story, adding that "if more people knew more

about the things we support and encourage, they would listen to us much more carefully about those occasional things that we oppose."

Two nationally known political leaders from Texas also addressed the Tuesday morning session. Senator Lyndon B. Johnson, majority leader in the U. S. Senate, called for a "politics of unity" which will enable Americans to exert strength and determination in an effort to create a world in which all men can be free. Speaker of the U. S. House of Representatives Sam Rayburn urged greater attention to the task of educating young people in the principles of American government and giving them a desire to perpetuate it.

Total registration through Thursday, with half a day of the meeting still remaining, had reached 4,727, including 2,742 physicians.

Freedom of Choice

In considering four resolutions which in various ways would have changed or replaced the statements on freedom of choice of physician which the House adopted in June, 1959, when acting upon the recommendations in the report of the Commission on Medical Care Plans, the House reaffirmed the following two statements approved in Atlantic City:

1. "The American Medical Association believes that free choice of physician is the right of every individual and one which he should be free to exercise as he chooses."

2. "Each individual should be accorded the privilege to select and change his physician at will or to select his preferred system of medical care, and the American Medical Association vigorously supports the right of the individual to choose between these alternatives."

However, in order to clarify and strengthen its position on the issue of freedom of choice of physician, the House also adopted this additional statement which was submitted as a substitute amendment on the floor of the House:

3. "Lest there be any misinterpretation, we state unequivocally that the American Medical Association firmly subscribes to freedom of choice of physician and free competition among physicians as being prerequisites to optimal medical care. The benefits of any system which provides medical care must be judged on the degree to which it allows of, or abridges, such freedom of choice and such competition."

Physician-Hospital Relations

The House received 12 resolutions on the subject of relationships between physicians and hospitals. To resolve any doubt about its position, the House did not act upon any of the resolutions but instead reaffirmed the 1951 "Guides for Conduct of Physicians in Relationships with Institutions." It also declared that "all subsequent or inconsistent actions are considered superseded."

The House also accepted recommendations that (1) the House of Delegates acknowledge the need to strengthen relationships with hospitals by ac-

tion at state and local levels, (2) the Board of Trustees of the Association continue to maintain liaison with the Board of Trustees of the American Hospital Association, and (3) the Council on Medical Service review this entire problem to ascertain if there have been actions inconsistent with the 1951 Guides.

Those Guides summarize the following general principles as a basis for adjusting controversies:

"1. A physician should not dispose of his professional attainments or services to any hospital, corporation or lay body by whatever name called or however organized under terms or conditions which permit the sale of the services of that physician by such agency for a fee.

"2. Where a hospital is not selling the services of a physician, the financial arrangement if any between the hospital and the physician properly may be placed on any mutually satisfactory basis. This refers to the remuneration of a physician for teaching or research or charitable services or the like. Corporations or other lay bodies properly may provide such services and employ or otherwise engage doctors for those purposes.

"3. The practice of anesthesiology, pathology, physical medicine and radiology are an integral part of the practice of medicine in the same category as the practice of surgery, internal medicine or any other designated field of medicine."

Scholarship Program

To help meet the need for an increasing number of physicians in the future, the House approved the creation of a special study committee which was asked to:

1. Present a scholarship program, its development, administration and the role of the American Medical Association in fulfilling it.

2. Ascertain the maximum to which medical schools could expand their student bodies while maintaining the quality of medical education.

3. Ascertain what universities can support new medical schools with qualified students and sufficient clinical material for teaching—either on a two year or a full four year basis.

4. Investigate the securing of competent medical faculties.

5. Investigate financing of expansion and establishment of medical schools.

6. Investigate financing of medical education as to the most economical methods of obtaining high quality medical training.

7. Develop methods of getting well-qualified students to undertake the study of medicine.

8. Investigate the possibility of relaxing rigid geographic restrictions on the admission of students to medical schools.

The House urged that the special committee be implemented promptly with adequate funds and staff so that it may make an initial report by June, 1960.

Relative Value Studies

Reaffirming a previous policy statement, the House approved in principle the conducting of

relative value studies by each state medical society, rather than a nationwide study or a series of regional studies by the A.M.A. The House also reiterated its authorization for the Committee on Medical Practices to inform each state medical association, through regional or other meetings, of the purpose, scope and objectives of such studies, the steps to be followed in conducting studies, the problems which may be encountered and the manner in which the results can be applied.

The House recognized, however, that some state medical societies are either not interested in relative value studies or are actively opposed to them. It pointed out that some state medical associations fear that the regional conferences of the Committee on Medical Practices will put pressure on them to carry out such studies and that this will result in the adoption of "fixed fees."

Since the regional conferences are educational in nature, the House said, it remains for each state or county medical association to accept or reject the idea of a study in its area.

The House expressed awareness of the fact that this is still a controversial matter. However, it commended the Committee on Medical Practices for its effort to carry out the instructions of the House, and it urged the committee to continue its educational work.

Miscellaneous Actions

In considering 44 resolutions and a large volume of annual, supplementary and special reports, the House also:

Learned that the A.M.A. Board of Trustees has appointed a liaison committee to meet with a similar committee of the *American Osteopathic Association* to consider matters of common concern;

Emphasized that local medical societies should insure that no member violates ethical traditions as they relate to ownership of *pharmacies* or stock in pharmaceutical companies;

Approved the plan of the Committee on Medical Rating of Physical Impairment to publish its new guide on the *cardiovascular system* in the A.M.A. Journal;

Recommended that Association councils and committees, whenever feasible, hold their meetings in the remodeled *Chicago headquarters*;

Called for investigation of the need, desirability and feasibility of establishing a home for *aged and retired physicians*;

Commended *Dr. F. S. Crockett*, retiring chairman of the Council on Rural Health, for his many years of devoted duty;

Urged active promotion and careful study of the newly developed "Guides for Medical Care in *Nursing Homes* and *Related Facilities*";

Suggested that fees for consultative examinations under programs of the *Bureau of Old Age and Survivors Insurance* should be adjudicated directly between the state medical society and the state agency involved;

Registered a strong protest to the *Veterans Ad-*

ministration, urging stricter screening of non-service-connected disability patients admitted to government hospitals;

Reiterated the Association's support of the *Blue Shield* concept and directed the Council on Medical Service to submit at the June, 1960, meeting its recommendations concerning a policy statement on A.M.A. relationship with Blue Shield plans;

Suggested that S.J. Res. 41, a bill which would institute a separate program of *international medical research*, be delayed until an over-all assessment can be made of proposals now before Congress dealing with domestic and international medical research;

Endorsed the program of the Educational Council for *Foreign Medical Graduates* but also urged that judicious consideration be given to local problems involved in the July 1, 1960, deadline for certification of foreign graduates;

Urged that *medical schools* include in their curricula a course on the social, political and economic aspects of medicine;

Declared that the threat of *nuclear warfare* has imposed a tremendous responsibility on the medical profession, which must be prepared to assume a critically important role in such an event;

Suggested that the A.M.A. make available to school libraries *information and literature* showing the advantages of private medical care and the American free enterprise system;

Stated that examinations to determine the physical and mental fitness of *aircraft crew members* should be made by doctors of medicine with special knowledge and proficiency in certain techniques;

Urged the American people to get proper *tetanus toxoid*, original and booster, and other immunizations as indicated from their physicians, and called on A.M.A. members to cooperate in an educational program on tetanus immunization;

Recommended that all state and county medical societies establish programs for the inspection and testing of all *fluoroscopes and radiographic equipment*;

Approved the Speaker's proposal that the opening session of the House, at the *Interim Meeting*, be moved from Tuesday morning to Monday morning, with the reference committees meeting on Tuesday and the House reconvening on Wednesday afternoon;

Called upon each individual physician to wage "a vigorous, dynamic and uncompromising fight" against the *Forand type of legislation*;

Urged state and local medical societies and individual physicians to implement the A.M.A. program for recruitment of high-grade *medical students*;

Changed the title of the Section on Surgery, General and Abdominal, to the Section on *General Surgery*;

Accepted with appreciation a \$2,500 contribution by Smith, Kline and French Laboratories toward establishment of a suitable award honoring the name of *Dr. Thomas G. Hull*, retiring secre-

tary of the Council on Scientific Assembly, and

Reaffirmed the "Suggested Guides to Relations Between Medical Societies and *Voluntary Health Agencies*," which were adopted at the December, 1957, meeting in Philadelphia.

At the Tuesday opening session, six state medical societies presented nearly \$250,000 to the American Medical Education Foundation. The checks turned over to Dr. George F. Lull, president of AMEF, were: California, \$156,562; Indiana, \$35,570; New York, \$19,546; Utah, \$10,355; New Jersey, \$10,000, and Arizona, \$9,263.

F. J. L. Blasingame, M.D.

Executive Vice President
American Medical Association

The Month in Washington (From the AMA Washington Office)

Congress embarked on a crucial election year session with expansion of the Social Security program shaping up as one of the major issues.

It was virtually a foregone conclusion that some liberalization of the program would be voted in the Democratic-controlled Congress, but the key question was how far the changes would go. In every Presidential election year during recent years, the House and Senate have approved a broadening of the program.

One of the prime reasons Social Security has been an election year "favorite" is that the program can be boosted without affecting the Federal budget. This is because it is financed through employer-employee contributions and is theoretically self-supporting.

Of special interest to physicians, of course, is the fate of the so-called Forand Bill that would provide hospitalization, surgical services, and nursing home care for Social Security beneficiaries. This would be accomplished through even higher taxes on employes and employers than now scheduled through already-voted step increases.

Supporters of the controversial legislation—vigorously opposed by the Administration, the American Medical Association, and allied organizations—launched their move to win enactment this session.

Sen. Pat McNamara, (D., Mich.), whose Senate Subcommittee on Aging held a series of hearings across the country during the recess, announced at the conclusion of the hearings that they showed a need for expanding Social Security to include health

care for the aged. He indicated that he thought the Forand bill did not go far enough.

A battery of speakers at a meeting here of the American Public Welfare Association also urged a sharp increase in benefits, with some advocating "cradle to grave" security for all.

Not all of the proposals for extending the program involved health care.

The Administration indicated it would recommend some expansion, especially in the disability program under which the Federal government helps the states provide assistance to persons over age 50 judged to be totally and permanently disabled. An influential lawmaker, Rep. Burr Harrison (D., Va.), disclosed that he would introduce legislation to remove the age 50 limitation to allow all persons regardless of age to participate. He estimated this would not require any hiking of the taxes. Rep. Harrison is Chairman of a House Ways and Means Subcommittee that held recess hearings on administration of the disability program.

Meanwhile, Chairman Wilbur Mills (D., Ark.) of the full Ways and Means Committee cleared the way for full-scale hearings this Congressional session on the entire issue of Social Security. In listing specific phases to be considered, however, the lawmaker did not mention the Forand proposal.

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A spokesman for the American Medical Association told the Federal Communications Commission that the AMA believes the best solution to objectionable advertising and programs on television and radio is for the industry "to clean its own house."

Dr. Eugene F. Hoffman, co-chairman of the AMA's Physician's Advisory Committee on Television, Radio and Motion Pictures, declared "The medical profession . . . stands ready to assist the networks and individual stations in determining accuracy and good taste of broadcast material involving health or medicine—either commercial or public service."

Trends of Our Times

The rate of admission to general hospitals in this country has increased by almost 80

percent in the last 20 years, from 56 to 99 admissions per 1,000 population. As a result, says Health Information Foundation, these hospitals "have become increasingly important in the total health picture."

The average patient in a general hospital today spends 8.6 days there—a decline of about one-third from the 12.5 average of 20 years ago.

Children nowadays need hospital care less often than they did 20 years ago, largely because the rates for two common operations, tonsillectomies and appendectomies, have declined by about half. At the same time, Health Information Foundation reports, improved surgical techniques have increased admission rates for most other operations, especially complicated heart surgery.

MEDICAL NEWS IN TENNESSEE

Medicare Benefits Restored

The Defense Department formally announced the restoration of benefits that were deleted from the Medicare program in an economy move of more than a year ago. The new benefits went into effect January 1, 1960.

The defense agency said, however, that a permit system for dependents, inaugurated in October, 1958, will continue to be part of the Medicare program of providing treatment in civilian hospitals for qualified dependents of military personnel. Under the permit system dependents living with sponsors must use military medical facilities unless permits certify these are unavailable.

The reason for the liberalization is that Congress last summer voted the full \$88,300,000 sought to run the Medicare program. Restored services include:

Treatment for patients with such illnesses as tonsilitis and hernia, which are not strictly of an emergency nature but for which good medical practice dictates prompt attention.

Care for acute emotional disorders for a period of 21 days or until other provision is made for more prolonged care.

Emergency outpatient care for acute injuries or accidents, such as simple fractures which do not require hospitalization.

The allowance of \$75 for certain diagnostic tests, such as X-ray examination, has been restored in cases in which these tests eventually lead to hospitalization of the dependent. Similarly, the \$50 allowance for certain post-hospitalization procedures such as a blood transfusion for a leukemia patient before he is finally released as completely treated, has been restored.

These two allowances have been restored to allow flexibility for the complete care of a patient for whom hospitalization has been authorized, according to the department.

The Defense Department planned to issue shortly a revised directive on Medicare, which the services will implement with their own regulation. The office for dependents' medical care will also send revised instructions to its contractors concerning payments to physicians and participating hospitals.

Health Needs of the Aged

Health needs and services for older people in the Memphis area were studied on November 6th. Some 200 doctors and health leaders from the city and county discussed the medical, nursing, social and mental problems of caring for the aged. The meeting was sponsored by the Memphis Shelby County Medical Society's Committee on Aging, the University of Tennessee College of Medicine and the Health and Welfare Planning Council of Memphis and Shelby County.

Middle Tennessee Heart Association

Cardiac Day, a one-day symposium on heart disease, was presented by the Middle Tennessee Heart Association at Vanderbilt Hospital on December 3rd. Five eminent physicians participated in the program. They were: Dr. Denton Cooley, Houston, Texas; Dr. Victor Drill, Chicago, Illinois; Dr. Abraham Lilienfeld, Baltimore, Maryland; Dr. Francis Murphey, Memphis, and Dr. Irving S. Wright, New York City. Dr. Lloyd Ramsey, Nashville, was general chairman of the Cardiac Day program.

Dr. Drill discussed the new drugs which have proved useful in preventing rheumatic heart disease. Dr. Cooley discussed new technics and achievements in heart surgery. The general problem of strokes was the

topic discussed by Dr. Lilienfeld. Dr. Murphey discussed the management of strokes resulting from diseases of blood vessels in the neck, and Dr. Wright, past president of the American Heart Association, told how to minimize the after effects of strokes through use of drugs. He is professor of clinical medicine at Cornell University. Dr. Wright was speaker, at the dinner at the Hermitage Hotel, and discussed how to minimize the after effects of strokes through use of drugs.

Vanderbilt University School of Medicine

Vanderbilt University School of Medicine received a \$5,656 grant from the U. S. Public Health Service recently for a symposium on the problems of the aging.

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A group of Vanderbilt University physicians and students have received grants from the National Institute of Health, the Public Health Service's research center. The awards include research grants to Dr. Robert D. Collins, assistant professor of pathology, \$23,890; Dr. Benjamin H. Robbins, professor and head of the department of anesthesiology, \$15,643, and Dr. H. C. Meng, associate professor of physiology, \$14,605.

University of Tennessee College of Medicine

Thirteen staff members at the University of Tennessee College of Medicine have been promoted. Dr. M. K. Callison, dean, announced recently.

Dr. Earl P. Bowerman, department of medicine, and Dr. Samuel Paster, department of psychiatry, went from assistant professors to associate professors.

Promoted from instructor to assistant professor were Dr. Edwin Cocke, Jr., department of otolaryngology; Dr. Harvey C. Reese, Jr. and Dr. Jerome Schroff, department of psychiatry, and Dr. Michael M. Marolla, and Dr. William G. White, department of medicine.

Promoted from assistant to instructor in the department of medicine were Dr. Richard S. Yocum, Dr. John Kier, Dr. Glen Horton, Dr. James B. Flanagan and Dr. Charles C. Elliott.

Dr. Ben Lieberman was promoted from lecturer to instructor in the department of psychiatry.

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A new section of clinical laboratory sciences has been established in the division of pathology and microbiology at the U.T. College of Medicine. The section embraces separate courses in medical technology, cytotechnology, microbiology, histological technics and physician's office assistants.

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Responsible persons are exploring possibilities of getting funds for increasing research facilities at the University Hospital at Knoxville. Dr. Stanfield Rogers, director of the research center at the hospital, said twice the present 12,000 to 14,000 sq. ft. is needed. Space medicine research, which is done by Dr. McChesney Goodall, and cancer research, which is Dr. Rogers' work, both need expanded facilities. Dr. Rogers stated that the research center could get grants from the civilian Federal Space Agency, if space were available for the work.

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Eight members of the staff have been promoted and nine Memphis physicians have been appointed. Promotions announced in the staff were:

Dr. Lillie C. Walker to assistant professor, Division of Preventive Medicine; Dr. Sheldon B. Korones to instructor, Division of Pediatrics; Doctors Fenwick Chappell, J. T. Duncan, B. F. Scott, Stephen Pridgen, John C. Beard, Jr., and Alfred Page to instructors in the Department of Surgery. Appointed to the faculty were the following Memphis physicians: Doctors Thomas C. Fleming, assistant professor; Frederick Knox, instructor, and Richard P. McNelis and Murphy Chesney as assistants in the Division of Medicine; Doctors Benjamin E. Greenberg and J. D. Cara, instructors in the Department of Radiology; Doctors Robert G. Allen and E. E. Bramlitt, assistants in the Department of Surgery; and Dr. Rushton E. Patterson, assistant, Division of Obstetrics and Gynecology.

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Promotions in the staff of the School of Biological Sciences have been announced

as follow: to professor, Dr. Lester Van Middlesworth, Division of Physiology and Dr. Frederic C. Chang, Division of Chemistry; In the Division of Anatomy Doctors Sidney Arthur Cohn and James Sherman Davis to associate professor; Dr. Homer Gates Biggs, to assistant professor in Chemistry; In the Division of Pathology and Microbiology, Dr. William M. Berton to associate professor, and Dr. Richard H. Walker to assistant professor; In the Division of Pharmacology Doctors Richard P. White and Robert C. Troop to associate professor, Dr. Nicholas Robert Di Luzio to associate professor and Dr. Gabriel George Pinter to assistant professor.

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A three-story building expanding facilities for both radiologic research and better treatment of patients will be the next addition to Memphis' Medical Center. Dr. David S. Carroll, head of the Department of Radiology for both the College of Medicine and the City of Memphis Hospitals, said a portion of the space will be devoted to basic radiologic research, permitting the addition of personnel to expand this program. The building will be erected in the rear of the John Gaston Hospital and will be connected to the Gaston Hospital and out-patient clinic in the Gailor Hospital Building. It will be constructed and equipped at a cost of \$1,500,000 and will add 34,000 square feet to the Medical Center. The City of Memphis Hospitals is providing \$1,100,000, U.T. \$255,000, and the National Institutes of Health of the U. S. Public Health Service, \$145,000.

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An expansion of the research activity of the Electrocardiology Laboratory is made possible by the addition to the staff of two physicians, Drs. Blair D. Erb of Memphis and Dr. John W. Evans of Iowa City, Iowa, and an engineering graduate is Jerry Carl Bradshaw, B.S., interested in medical electronics.

PERSONAL NEWS

Dr. W. B. Aerce, Ridgely, has been presented the Rotary Club's "Citizen of the Year" award.

Dr. Douglas H. Riddell, Nashville, has been

elected president of the Baptist Hospital medical staff. Assisting him will be **Dr. Benjamin S. Fowler**, vice president, and **Dr. Russell T. Birmingham**, secretary-treasurer.

Dr. B. M. Overholt, Knoxville, has been re-elected chief of staff of St. Mary's Hospital. Chosen vice chief of staff was **Dr. L. G. Taylor** who succeeds **Dr. O. E. Ballou**. **Dr. Floyd N. Bankston** was elected secretary-treasurer to succeed **Dr. J. E. Aeker**.

Dr. William S. Muse, Knoxville, has been elected chief of staff at Presbyterian Hospital. **Dr. Kenneth E. Shoemaker** is the new vice chief and **Dr. R. H. Duncan** is secretary.

Dr. R. H. Kampmeier, Nashville, has been appointed to direct graduate training at St. Thomas Hospital. He will be in charge of the education of internes and residents in the care of patients.

Dr. Bland W. Cannon, Memphis, has been named president-elect of the Memphis and Shelby County Medical Society. **Dr. Duane M. Carr** will assume the presidency for 1960 succeeding **Dr. Ralph O. Rychener**. Other new officers of the Memphis Society are **Dr. A. J. Ingram**, vice president; **Dr. Chas. Clark**, secretary; and **Dr. Wm. T. Satterfield**, treasurer.

Dr. C. H. Farrar, Manchester, has been named chief of staff of the Coffee County General Hospital. **Dr. H. H. Winters**, Manchester, was named vice chief and **Dr. C. B. Harvey**, Tullahoma, secretary-treasurer.

Dr. Philipp C. Sottong, Chattanooga, has been named director of research and **Dr. Robert B. Hagood**, Chattanooga, has been named director of the Guidance Clinic, it was announced by **Dr. Joseph W. Johnson, Jr.**, president of the Board of Directors.

Dr. William R. Respass has opened his office for the general practice of medicine at Huntingdon.

"Cost of Medical Care" was the topic discussed on a weekly television program in Chattanooga by **Dr. Carl A. Hartung**, past president of the Chattanooga-Hamilton County Medical Society.

Dr. Jack Chesney, Knoxville, has been named chief of staff at Baptist Hospital. Elected to other hospital staff posts were: **Dr. George Henson**, general practice department; **Dr. W. E. Smith**, surgery; **Dr. Dan Davis**, medical; **Dr. K. A. O'Connor**, obstetrics; **Dr. Frank T. Rogers**, roentgenology, radiology, and isotopic medicine; and **Dr. R. J. Lefler**, pathology and clinical laboratories department.

Dr. George Henshall, Chattanooga, recently addressed the Junior League. He discussed the Forand Bill.

Dr. Fred Moore has opened his office for the practice of surgery in Dyersburg.

Dr. William W. Mason, Memphis, has been elected president of the Memphis Pediatric Society to succeed **Dr. A. L. Ball**. Other new officers are **Dr. Raphael N. Paul**, vice president, and **Dr. Fontaine S. Hill**, secretary-treasurer.

Dr. H. P. Whittle, Etowah, has been elected

chairman of the Unaka District of the Smoky Mountain Council of Boy Scouts of America.

Dr. Fred D. Owenby, Nashville, has been elected president of the General Hospital staff. Other officers elected were: **Dr. John W. Griffith**, vice president, and **Dr. Albert P. Isenhour**, secretary-treasurer.

Dr. James H. Collins, Memphis, has been elected president of the St. Joseph Hospital medical staff, succeeding **Dr. Harry J. Jacobson**. Other officers named were: **Dr. Lawrence C. Lewis, Jr.**, president elect for 1961, and **Dr. Joseph C. Orman**, secretary. **Dr. Arthur Porter**, a member of the surgical staff, has been presented a plaque in recognition of his long years of outstanding service to the hospital. All are from Memphis.

Dr. John Mohr, Knoxville, has been re-elected chief of staff at East Tennessee Children's Hospital.

Dr. Frank Tullis, chief of the division of medicine at the University of Tennessee Medical School, Memphis, was guest speaker at the Engineers Club. He discussed the various types of heart disease, their causes, and treatments used to combat them.

Dr. John W. Avera, Jr., Knoxville, has been appointed medical director for Appalachian National Life Insurance Company.

Dr. Joseph E. Acker, Jr., Knoxville, has been elected chief of staff of University hospital. He succeeds **Dr. Martin Davis**.

Dr. Dewey Hood has announced the opening of his office for the practice of medicine in Decherd.

Dr. Arthur A. McMurray, Clarksville, has been named president elect of the Middle Tennessee Medical Association. **Dr. John S. Derryberry**, Shelbyville, was recently installed as president. **Dr. Greer Ricketson**, Nashville, is secretary-treasurer and **Dr. Carl C. Gardner, Jr.** of Columbia is retiring president.

Dr. R. Beverly Ray, Memphis, has been named president elect of the Baptist Hospital medical staff.

Dr. William G. Rhea, Paris, recently addressed the Rotary Club.

Dr. Martin Davis, Knoxville, recently addressed the Annakusa Club of Kingston.

Dr. James G. Hughes, Memphis, has been elected chairman of District No. 4 of the American Academy of Pediatrics.

Dr. Jack Adams, Chattanooga, addressed the Tennessee Division of the American Cancer Society at Cleveland.

Dr. A. L. Jenkins, Fountain City, has been elected chairman of Knox County's north district of the Great Smoky Mountains Boy Scout Council.

Dr. Arthur R. Porter, Jr., Memphis, announces the removal of his offices from 627 Hickman Building to the Claybrook Medical Building—Suite 302 at 220 South Claybrook Street.

HISTORICAL NOTES

Through the good offices of a former member of the Tennessee State Medical Association, this thesis has been offered our Journal. This will appear in five installments. It should be of interest, certainly to all former medical officers, to read and to visualize the provision of medical care in a mobile war of about a century ago in our general area of the country.—Editor.

The Organization and Administration of the Medical Department of the Confederate Army of Tennessee

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Master of Arts

in

The Department of History
by

Alvin Raymond Sunseri
B.A.,* Southeastern Louisiana College,
June, 1955

Abstract

The purpose of this work is to illustrate the medical problem confronting the Confederate Army of Tennessee.

The general picture of the medical service in the Union Army has been fully covered in G. W. Adam's *Doctors in Blue*. On the Confederate side H. H. Cunningham's unpublished dissertation "The Hospitals and Medical Service of the Southern Confederacy" is a fine study of Confederate medicine.

The Medical Corps of the Army of Tennessee was in a unique position. Whereas the other medical departments could depend on a somewhat stable front which enabled them to maintain permanent establishments, the nature of the war in the west forced the hospitals in that area time and again to pull stakes and move to new locations. Thus, for all practical purposes, the organization developed into one vast field medical service.

At the head of the army was Braxton

Bragg, who well understood the circumstances and gave his full cooperation. The Field Medical Director, A. J. Foard, and Director of Hospitals, Samuel H. Stout, were both capable individuals who foresaw their major problem and coordinated well to meet it. In Kate Cumming and Ella Newson the service possessed two of the outstanding women to emerge in the struggle. These, together with the other surgeons, nurses, and aids, formed an organization which could well be styled "The Mobile Medics."

Chapter I

General Organization of the Confederate States Army Medical Service

The confusion and want of order are as ever. A great many doctors are here (Corinth) who came with the men from the different regiments. The amount of good done is not near what it might be, if things were better managed. Some one is to blame for this state of affairs. (Kate Cumming, *A Journal of Hospital Life*.)

I. Medical Training and Knowledge in The Ante-Bellum South

The medical department of the Confederate States Army was even less adequately prepared than the other arms and services to cope with the new total war that evolved in the struggle between the North and South.

Whereas the combat arms at least had veteran officers to develop their organization and administration, few experienced military surgeons were available to the Southerners. This lack of personnel constituted the most serious handicap, both in terms of medical service and administration, under which the Southern Armies labored. Few doctors in the South or elsewhere had practiced surgery; and a gunshot wound, notwithstanding the "code of chivalry," was a rarity indeed.¹ Simon Baruch as a young assistant surgeon remarked, "My surgery may interest you . . . I had never lanced a boil . . . when the operating surgeon stated challengingly, 'Doctor, perhaps you would like to operate.' This was my first surgical operation of any kind. The surgeon was kind enough to commend my work. I never learned his name nor that of the patient."² The rather haphazard nature of battlefield operations was fairly common throughout the first two years of the war

*Present address, St. Michael's College, Sante Fe, N. M.

and persisted even through the severe engagements in the latter stages of the conflict.

In the struggle against disease which was termed the "deadliest enemy," the Confederate infections became the paramount problem of the medical department and unfortunately few of the physicians had had any experience with the medical problems arising from throwing large masses of men into close and intimate contact.

What, then, was the background of those doctors who were to form the Medical Corps of the Confederate States Army? In numbers they did not exceed three thousand.¹ One surgeon placed their number at "two thousand, not less than fifteen hundred."² Several of them who formed the core of the medical service did have prior military experience. A few had seen service in the Crimea.³ One had witnessed Solferino and later wrote an outstanding manual on military surgery, but the vast majority of Southern medical men were totally lacking in military experience.⁴

Though most Southern doctors lived in rural areas, in comparison to the Northern doctors' usually urban practice, location did not necessarily detract from their professional ability. This holds true particularly of physicians engaged in plantation work; the planter would seek capable medical men if only from the financial viewpoint of protecting their slave labor. However, the isolation of these practitioners from medical associations, combined with a shortage of publications, placed them at a disadvantage in maintaining pace with current medical advancements.

The antebellum medical education was basically the same in all sections of the country. In their formal training medical students received instructions wholly didactic in nature. Those who attended operations were compelled to do so under such inconvenient circumstances that details could not be observed. One doctor writing after the war stated, "In two years of college I did not once receive bedside instruction or enter the ward of a hospital." He further said that upon graduation he actually knew "very little" and was incompetent "to care for the sick or injured."⁵ This

statement becomes more significant when one considers that the average medical student received only four or five months of college work.

Nevertheless, some Southerners were well abreast of progress and made notable contributions themselves. Outstanding among these was Dr. Crawford W. Long and his experiments with anesthesia. Mention also must be made of Dr. Ephraim McDowell, who performed the first ovariectomy. These two, along with Deadrigh, Erskine, and several others, were outstanding figures in American medicine.

One contribution in the field of medical journalism was made in 1836 when the *Southern Medical and Surgical Journal* was first published in Augusta, Georgia, by Dr. Miles Anthony. Another aid in awareness of developments was the American Medical Association, which many Southern physicians supported after its founding in New York in 1848.⁶

Medical schools had been established in South Carolina, Louisiana, Georgia, Virginia, Alabama, Tennessee and Kentucky. These schools received private endowments and support from state and local governments. Their faculties were as capable as any of their day and included such individuals as John E. Holbrook, probably the outstanding zoologist in the country. Many Southerners attended the University of Pennsylvania, the oldest medical school in America. More than half of the graduating class of 1850 at Jefferson Medical College at Philadelphia were from Southern states. In addition many others completed their medical education at Edinburg, Vienna, or Paris.⁷

From the standpoint of contemporary professional knowledge the Southern doctor, with the exception of those in isolated rural areas was as well informed as his Northern colleague. His education was the same. Comparatively speaking, there were as many capable men in the South as in the North. The South also had its share of incompetents. The basic problem was to weed out these incompetents and to adjust the capable to the entirely new situation that had arisen; that is, to utilize the existing medical knowledge in the most ef-

ficient manner possible.

2. Organization of the Medical Service

The organization of the medical department of the Army of the Confederate States was basically the same as that of the United States Army. In both much confusion and inefficiency existed at first. Some of this was to linger on throughout the conflict. However, an honest attempt was made by all concerned to better the medical organization. Certainly as a supporting service it can compare favorably with any other in the army.

In March of 1861, under "An Act for the Establishment and Organization of a General Staff for the Army of the Confederate States of America," the medical department of the regular army had its beginning. The act provided for a medical department consisting of one Surgeon General, four surgeons, and six assistant surgeons. In the event of expansion additional assistant surgeons were authorized. The Surgeon General was to have the rank of lieutenant colonel of cavalry while surgeons and assistant surgeons would be majors and captains respectively.

The need of medical officers to staff the provisional army brought further congressional action in March 1861. It was provided that one surgeon and one assistant surgeon be appointed by the president for each regiment of volunteers and militia. In April of 1861, Congress authorized an addition of six surgeons and fourteen assistant surgeons for the regular army. Now the president could appoint as many surgeons and assistant surgeons in the regular army as was needed in its hospitals.

The medical department came under the supervision of the Secretary of War. He delegated to the Surgeon General the duties of administrative direction of the medical department, the government of hospitals, regulation of the duties of surgeons and assistant surgeons, and issuance of orders and instructions relating to the professional duties of medical officers. All communications from subordinates requiring his action were to be addressed to him.¹⁰

From the office of the Surgeon General, where five aids were on duty to assist him, the chain of command extended to the med-

ical directors in the field. These directors were at army level or, in some cases, a smaller separate command. Responsibility for the general hospitals in his area also fell to the field director, except for the Army of Tennessee where General Braxton Bragg was commanding. In May of 1863, a director of general hospitals was appointed, thus leaving the army medical director free for field service. Bragg had made this change in the Army of Tennessee in July, almost a year earlier. Some confusion resulted from the order, which stated that in an army the medical director was recommended by the Surgeon General and appointed by the Secretary of War at the solicitation of the general in command. Thus the director was appointed by the commanding general but was responsible in performance of duty to the Surgeon General.¹¹

After the field medical director, the next responsible officer was the senior regimental officer in a division or separate brigade. All other regimental officers were accountable to him. In the general hospital system, each post or hospital surgeon was responsible to the director of hospitals in his area who in turn was under the Surgeon General.

To further aid the Surgeon General, Congress authorized the appointment of medical inspectors to act as his personal representatives. Five medical examining boards also were provided to process applicants for appointment as surgeons and assistant surgeons. Medical purveyors were situated in key points throughout the Confederacy and abroad to purchase and distribute medical supplies. Finally, five laboratories were set up at Lincoln, North Carolina; Tyler, Texas; Macon, Georgia; Columbia, South Carolina; and Augusta, Georgia.¹²

Congress passed further acts to aid in efficient medical service. One, "An act to Better Provide for the Sick and Wounded of the Army in Hospitals," was intended to alleviate the terrible overcrowding that was already taking place in the hospitals. An interesting feature of this bill attempted to have men admitted to the hospitals by states. This resulted in many cases of unnecessary expense. In May of 1863, provision was made for Way Hospitals to be located along railroads in order to furnish

quarters and rations to sick and wounded soldiers on furlough. An examining board was appointed at this time to determine who should receive furloughs because of inability to perform military duties. This innovation was greatly needed because of the lack of coordination in granting furloughs prior to this act. However, much criticism was directed at the granting of furloughs to men who should have remained in the hospitals and who, as a result of the leave, either returned in worse condition or expired while at home.¹⁵

An Invalid Corps was established in December of 1863, to alleviate the manpower shortage. The Corps made use of those individuals unfit for field service but able to perform duty of a limited nature.¹¹

Except for appropriations, no further acts were passed to improve the medical establishment. Later attempts to pass certain measures that would have aided the department all failed because the legislative and executive branches could reach no further agreements on these acts.¹⁵

3. Samuel P. Moore and His Contributions

A former United States Army surgeon, Dr. D. C. DeLeon, was appointed first Surgeon General of the Confederate States Army. He resigned because of the removal of the capital to Richmond, and following a short interim Dr. Samuel P. Moore, also a former United States Army surgeon, was appointed to the vacated position. It is an indication of the stability of the department that Moore remained Surgeon General from his appointment in July, 1861, until the end of the war. Moore's own appointments seldom deviated from this steadfast pattern, and in most cases the persons concerned merited his permanent trust. Many proved to be capable, intelligent, and hard-working individuals.

At the time of his appointment Moore was a comparatively young man, forty-eight years of age. He was a native of South Carolina and had received his professional education at that state's medical school. In 1835 he became assistant surgeon in the United States Army and his military assignments in this position carried him throughout the country. A year after Moore's active service in the Mexican War, 1846-1848,

he was appointed a surgeon of the army. But Moore resigned his commission and retired to private practice upon the secession of South Carolina from the Union. Such was the situation when this veteran of twenty-five years active service was called to head the Confederate Medical Department.¹⁶

In temperament Moore possessed qualifications sorely needed in the Confederacy. Precise and neat in appearance and correspondence, he demanded the same of his subordinates. A perseverance was present in him that enabled him to follow all orders and directions through to their fulfillment. A stern disciplinarian, he had an unserving demand for strict compliance to departmental policy. He was quite harsh in treatment of those who failed to meet his standards, and his bluntness at such times frequently wounded the keen sensibilities of his subordinates. Moore was attempting to create a medical department in the midst of war and the stringent methods he used were necessary to achieve his goal of an efficient service. Later events proved the value of his policies.¹⁷

Some of Moore's innovations included the following: a system of examination to weed out those physically and mentally incapable of performance of duty; organization of the Association of Army and Navy Surgeons of the Confederate States; the publication of *Confederate States Medical and Surgical Journal*, a very successful monthly that continued until the end of the war; and the commissioning of Dr. J. B. Jones to do research on various diseases. Jones was one of the most prolific writers of the war, and his material confederate medicine is accepted by all leading authorities. The Surgeon General next commissioned the writing of *A Manual of Military Surgery* and encouraged investigations into the medical resources of the South.¹⁸ This, incidentally, led to the highly successful book entitled *Resources of the Southern Fields and Forests; Medical, Economical, and Agricultural*. Another of Moore's outstanding achievements was his development of the one-story pavillion-type hospital. This, in essence remains the standard type post hospital in the army today.¹⁹

In spite of the petty criticism directed at him, all agree that Moore was a capable, intelligent individual. He was fortunate in choosing immediate subordinates who successfully tempered his bluntness. One criticism directed toward his choice of assistants is that many of them were good surgeons filling administrative posts. Certainly Moore must be regarded as a man who was keenly interested in his job and sought, to the best of his abilities, to fulfill the responsibility he had undertaken.

However, even with competent assistants and capable organization Moore's job was overwhelming. The medical ignorance of his time combined with the vast multitude of forces fostered unprecedented casualty lists. But the organization of his service and the various medical departments at army level undoubtedly influenced the rate of mortality. In some instances blunders caused needless death, while at other times the display of foresight and initiative saved many a life.

BOOK REVIEW

ANESTHESIA FOR INFANTS AND CHILDREN:

by Robert M. Smith, Anesthesiologist—The Children's Medical Center, Boston, Mass.; Assistant Clinical Professor of Anesthesia, Harvard Medical School. 418 Pages. C. V. Mosley Company, 1959. \$12.00

This book is by one of the leading pediatric Anesthesiologists in the United States.

The material is presented in a logical form. Subjects covered are basic, such as respiratory Physiology in children, biology and Behavior, equipment used, techniques used. Special techniques such as hypothermia extracorporeal circulation are covered. Anesthesia problems for each of surgical specialties are covered. There is an excellent section on complications and mortality in Pediatric Surgery and Anesthesia. Dr. Smith finds that the nonbreathing technique is best in his hands, however, he stresses that there are other safe and satisfactory methods as long as the basic problems are understood. His book helps one in understanding these problems.

This is an excellent book for the teaching of anesthesiology and also for the surgeon and pediatrician.

W. SCHULL, M.D.

ANNOUNCEMENTS

East Tennessee Heart Association

"Progress Reports in Cardiovascular Diseases" will be presented on Thursday, January 21. The program includes: "Hereditary Aspects of Common Cardiovascular Diseases" by Dr. Victor A. McKusick, Baltimore; "Management of Rheumatic Carditis" by Dr. Alexander S. Nadas, Boston; "Present Status and Future of Open Heart Surgery" by Dr. Andrew G. Morrow, Bethesda; "Diagnosis and Management of Congestive Heart Failure in Infancy" by Dr. Alexander S. Nadas; "Surgical Management of Congenital and Acquired Aortic Stenosis," Dr. Andrew G. Morrow; and "The How and Why of Cardiac Auscultation" by Dr. Victor A. McKusick. There will be a panel discussion on "Unusual Causes of Congestive Heart Failure," moderated by Dr. Frank London (Knoxville) with Doctors Mattingly, McKusick, Morrow and Nadas. The speaker at the Banquet will be Dr. Thomas W. Mattingly of Washington, D. C. speaking on "The Highway Accident as an Important Cause of Trauma to the Heart and Great Vessels."

West Virginia Academy of Ophthalmology and Otolaryngology

The West Virginia Academy of Ophthalmology and Otolaryngology will hold its annual meeting at the Greenbrier Hotel, White Sulphur Springs, West Virginia, April 10-12, 1960. Among the guest speakers will be: Dr. Harold G. Scheie, Professor of Ophthalmology, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania; Dr. Charles E. Iliff, Associate Professor of Ophthalmology, John Hopkins University School of Medicine, Baltimore, Maryland; Dr. Oscar T. Becker, Clinical Associate Professor of Otolaryngology, University of Illinois, Chicago.

For additional information please contact the secretary, Dr. Albert C. Esposito, First Huntington National Bank Building, Huntington 1, West Virginia.

New Orleans Graduate Medical Assembly

The twenty-third annual meeting of the New Orleans Graduate Medical Assembly will be held March 7-10, 1960 with headquarters at the Roosevelt Hotel. Following the meeting there will be a clinical cruise to the West Indies, combining medical programs at sea with sightseeing tours on shore at West Indian ports.

Information may be obtained from Dr. Mannie D. Paine, Jr., Secretary of the New Orleans Graduate Medical Assembly, 1430 Tulane Avenue, New Orleans 12, Louisiana.

American College of Surgeons

Surgeons and related medical personnel are invited to attend a three-day sectional meeting of

the American College of Surgeons at Louisville, Kentucky, January 21-23, 1960. Headquarters will be at the Brown Hotel.

In addition to the general surgery program which will be of particular interest to gynecologists, thoracic surgeons, vascular surgeons and urologists. Dr. D. Dwight Towns is in charge for arrangements for a special two-day ophthalmic surgery program, Dr. Wm. C. Wolfe has planned a special two-day program for otolaryngologists and Dr. James C. Drye is in charge of a cancer program workshop for medical directors of approved cancer programs, to be held at the Louisville General Hospital.

The American College of Allergists

The sixteenth Congress and Graduate Instructional Course in Allergy of the American College of Allergists will be held February 28-March 4, 1960 at the Americana Hotel in Miami Beach, Florida.

Mid-South Postgraduate Medical Assembly

The 71st annual meeting of the Assembly will be conducted in Memphis at the Peabody Hotel, February 9-12, 1960. Col. Paul A. Campbell, director of the Air Force's space medicine program will be one of the key speakers. Other featured speakers will include: Dr. Harry Medovy of Winnipeg, Canada, internationally known pediatrician; Dr. Frank E. Stinchfield of New York, president of the American Academy of Orthopedic Surgery; Dr. Herbert Conway of New York, prominent plastic surgeon; and Dr. John E. Heslin of Albany, New York, president-elect of the American Urological Society. Other eminent men of medicine will also present lectures.

Southern Tuberculosis Conference Southern Trudeau Society

The 1960 Annual Meeting of the Southern Trudeau Society (and the Southern Tuberculosis Conference) will be held on September 14, 15 and 16, 1960 at the Hotel Francis Marion, in Charleston, South Carolina.

Postgraduate Course on Diseases of the Chest

The American College of Chest Physicians will present the 13th annual postgraduate course on Diseases of the Chest at the Sheraton Hotel, Philadelphia, March 14-18, 1960. Recent advances in the diagnosis and treatment of heart and lung diseases, medical and surgical aspects, will be presented.

Further information may be obtained by writing to the Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

Recently Licensed Physicians in Tennessee

Loden, James P., Memphis
Campbell, Earl R., Jr., Chattanooga
Wadsworth, George L., Donelson

Ruch, Walter A., Jr., University City, Mo.
Blain, Daniel, Sacramento, California
Regen, Eugene M., Jr., Nashville
Weinberg, Warren A., Osceola, Ark.
Richie, Robert E., Nashville
Seat, Stanley G., Nashville
Martin, James D., Charlottesville, Va.
Anderson, William C., Nashville
Peagler, Charles G., Knoxville
Mayfield, George R., Nashville
Nagle, Baker G., Macon, Miss.
Whittaker, William A., Jr., Bristol
Henderson, Norman L., Lawrenceburg
Holt, Jack B., Jefferson City
Sherman, Roger T., Memphis
Najjar, Victor A., Nashville
Hays, James M., Chattanooga
Abernathy, Andrew H., III, Jonesboro, Ark.

Emory University School of Medicine

The Department of Ophthalmology of the Emory University School of Medicine announces a postgraduate course in Applied Ophthalmic Pathology on December 3 and 4, 1959 at the Grady Memorial Hospital, Atlanta, Georgia. The guest lecturers will be Dr. Lorenz Zimmerman of the Armed Forces Institute of Pathology, Washington, D. C.; Dr. T. E. Sanders of Washington University, St. Louis; Dr. J. A. C. Wadsworth of Columbia Presbyterian Medical Center, New York; and Dr. J. T. Godwin of Atlanta, Georgia.

New Orleans Graduate Medical Assembly

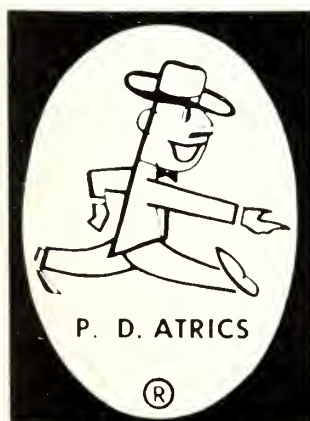
The Twenty-third annual meeting of the New Orleans Graduate Medical Assembly will be held March 7-10, 1960 with the headquarters at the Roosevelt Hotel in New Orleans. Guest speakers on the program are as follows:

Anesthesiology—Leroy D. Vandam, M.D., Boston, Massachusetts
Dermatology—Clarence S. Livingood, M.D., Detroit, Michigan
Gastroenterology—Henry D. Janowitz, M.D., New York, New York
General Practice—John G. Walsh, M.D., Sacramento, California
Gynecology—E. Stewart Taylor, M.D., Denver, Colorado
Internal Medicine—Charles H. Burnett, M.D., Chapel Hill, North Carolina
Internal Medicine—To be announced
Neurosurgery—Donald D. Matson, M.D., Boston, Massachusetts
Obstetrics—Frank R. Lock, M.D., Winston-Salem, North Carolina
Ophthalmology—Trygve Gundersen, M.D., Boston, Massachusetts
Orthopedic Surgery—Carroll B. Larson, M.D., Iowa City, Iowa
Otolaryngology—John J. Conley, M.D., New York, New York
Pathology—W. A. D. Anderson, M.D., Miami, Florida
Pediatrics—Franklin H. Top, M.D., Iowa City, Iowa

Proctology—Raymond J. Jackman, M.D., Rochester, Minnesota
 Radiology—David G. Pugh, M.D., Rochester, Minnesota
 Surgery—Bentley P. Colcock, M.D., Boston, Massachusetts
 Surgery—Robert M. Zollinger, M.D., Columbus, Ohio
 Urology—George C. Prather, M.D., Brookline, Massachusetts

Physicians Licensed to Practice Medicine In Tennessee

Russell, William B., Memphis
 Repass, Robert A., Bristol
 Mackey, Ray W., Memphis
 Chapnick, Abraham M., Nashville
 Foster, Hugh M., Jr., St. Louis, Mo.
 Adler, Richard C., Baltimore, Md.
 Anderson, James E., Jr., Nashville
 Bibb, Richard E., Nashville
 Blankenship, Willard J., Westmoreland
 Cate, Thomas R., Nashville
 Dummit, Eldon S., Jr., Nashville
 Evans, Jack P., Jackson, Miss.
 Thomas, Emil D., Knoxville
 Weitzman, Stephen, Brooklyn, N. Y.
 Coale, George B., III, Nashville
 Walker, Samuel R., Nashville
 Kendall, John W., Jr., Nashville
 Vogel, John H. K., Nashville
 Heimberg, Murray, Nashville
 Hollins, Gordon, Nashville
 Hunt, Jerry Cheek, Nashville
 Jaffe, Jack A., Nashville
 Johnson, Andrew M., Wilmore, Ky.
 Jones, Erwin A., Jr., Nashville
 Luther, George A., Nashville
 Moore, Merrill D., Jr., Nashville
 Pierce, Stirling H., Palo Alto, Calif.
 Shepard, Frank M., Nashville
 Clifford, Rufus R., Jr., Lawrenceburg
 Frank, Donald A., Lake Village, Arkansas
 Keller, Robert H., Grand Rapids, Mich.
 Page, Harry L., Jr., Gainesboro
 Renfro, Samuel L., Jacksonville, Fla.
 Shine, Lee C., Brentwood, Mo.
 Shackelford, Joseph R., III, Nashville
 Strayhorn, William D., III, Nashville
 Tinsley, Ellis A., Nashville
 Beasley, Alfred D., Lexington
 Gibson, Carl E., Maryville
 Haun, Cosmo L., Niota
 Pedigo, Phillip A., Memphis
 Rather, Daniel A., Maryville
 Newman, Matthew, Seattle, Wash.
 Beals, Daniel F., Knoxville
 Pualwan, Fawzi A., Ft. Knox, Ky.
 Coopwood, William E., Nashville
 Mitzelfelt, Harold E., Madison College
 Lane, Thomas C., Humboldt
 Burnett, Waldo E., Omaha, Nebraska
 Barrett, Joseph E., Williamsburg, Virginia
 Partain, Robert A., III, Nashville
 Jolly, Philip C., Nashville
 Whitthauer, Norman E., Nashville
 Smith, Bobby J., Old Hickory
 Neblett, Donald T., Maryville
 Fuson, Philip L., Middlesboro, Ky.
 Ross, Thomas E., Memphis
 Shackelford, Elbert C., Jr., Roanoke, Va.
 Turner, Shelby O., Clarkrange
 Wright, John K., Livingston
 Davidson, Elvyn V., Knoxville
 Camazine, Lewis S., Greensboro, N. C.
 Greene, Donald S., Memphis
 Lovelace, Fred R., Nashville
 Ogg, Billy D., Knoxville
 Patrick, Robert G., Kingsport
 Pennington, Richard D., Phoenix, Ariz.
 Bolner, Anne U., Fayetteville
 Peterson, Walter A., Jr., Memphis
 Maguire, James K., Memphis
 Kiszka, Edward F., Kingsport
 Scheibert, Charles D., Nashville
 Slonecker, William T., Nashville
 Alvazian, Garabed H., Memphis
 Gaines, Donald L., Nashville
 Marten, George W., Topeka
 Messier, Robert H., Oak Ridge
 Flowers, Samuel H., Middlesboro, Ky.
 Miller, Carter F., Jr., Knoxville
 Peoples, James H., Jacksonville, Fla.
 Nickell, Lawrence R., Signal Mt.
 Imperato, Pasquale J., Brooklyn, N. Y.



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PLACEMENT SERVICE

The placement service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee.

Locations Wanted

A 32 year old married physician. Methodist. Graduate Duke University. Desires private practice in Ob-Gyn in medium size community in east or middle Tennessee. Available January, 1960. LW-332

A 39 year old married physician. Protestant. Graduate University of Cincinnati. Desires clinical, assistant or associate practice in surgery in Tennessee community of 50,000 or over. Available immediately. LW-337

A 40 year old married physician. Presbyterian. Graduate University of Vienna. Board Certified in Roentgenology. Desires to service small hospitals. Available in 60 days. LW-341

A 33 year old married physician. Presbyterian. Graduate University of Madrid, Spain. Board eligible in neurosurgery. Desires associate or assistant practice in neurosurgery in Tennessee community of 100,000. Available immediately. LW-342

A 30 year old married physician. Protestant. Graduate Tulane University. Desires assistant, associate or clinical practice in Ob-Gyn in middle or west Tennessee community of 50,000. Available June, 1960. LW-345

A 38 year old married physician. Methodist. Graduate Vanderbilt University. Desires assistant, associate or clinical practice in Ob-Gyn in east or middle Tennessee community of 30,000-150,000. Available February, 1960. LW-346

A 28 year old married physician. Baptist. Graduate Emory University. Desires assistant, associate or clinical practice in internal medicine in east or middle Tennessee community of 20,000 or more. Available July, 1960. LW-347

A 33 year old married physician. Presbyterian. Graduate Medical College of Virginia. Desires assistant, associate or clinical practice in Ob-Gyn in east Tennessee community. Available July, 1960. LW-348

A 29 year old married physician. Methodist. Graduate Medical College of Virginia. Desires private practice in Pathology in east or middle Tennessee community. Will consider assistant or associate practice. Available July, 1960. LW-350

A 26 year old married physician. Methodist. Graduate University of Tennessee. Desires gen-

eral practice in middle or west Tennessee community of 2,000. Prefers assistant, associate or clinical practice. Will consider industrial or institutional practice. Available April, 1960.

Physicians Wanted

Middle Tennessee town has fund of \$25,000 to build clinic for general practitioner. Population 1,000, trade area 8,000. Located about 72 miles from Nashville and about 32 miles from three hospitals. Excellent high school and elementary school. Agriculture and small industry. PW-123

Four partner clinic in northwest Tennessee community of 10,000 desires associate GP under 35 years of age. Hospital located in community. PW-124

Physician in west Tennessee town of 500,000 desires an associate for internal medicine practice. Office space and some equipment provided. PW-126

Physician in east Tennessee town of 30,000 desires an associate GP and surgeon. Office space and some equipment provided. PW-127

Southern Tennessee community of 1,000 desires general practitioner to replace physician who has left community to join hospital group in another community. Nearest hospital 15 miles. Office space available. PW-131

Small central Tennessee community of 1,000 desires general practitioner. Community been without a physician for some time. Fully equipped six room clinic available. Two hospitals totaling 75-beds located 14 miles away. PW-133

Physician in east Tennessee community of 6,000 desires an associate GP. Age 25-35 with 1 year internship. New private office, examining rooms and equipment available. Hospital located in community. PW-134

West Tennessee town of 500,000 in need of an eye, ear, nose and throat specialist. Office and equipment already set up in choice location in downtown office building. For sale on reasonable terms because of death. PW-135

Middle Tennessee community of 8,000 in need of a physician in the field of internal medicine. Must have 2 years internship and 1 year residency training. Office space located near newly built hospital. PW-136

Pediatrician with 2 years internship and 1 year residency training needed in middle Tennessee community with new hospital, and office building located near hospital. Office furnished except for doctor's private office and examining rooms. PW-137

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Rehabilitation during convalescence from illness is probably the most neglected area in the practice of medicine. Observations on the value of rehabilitation in the Armed Forces during World War II advanced the knowledge in this field immeasurably. However, the application of this knowledge in civilian practice has been slow indeed.

Rehabilitation of the Industrial Patient*

JAMES J. LAWSON, M.D.,† New Johnsonville, Tenn.

When we encounter a serious illness or disability, our attention is usually focused on the immediate crisis—a febrile patient in need of appropriate antibiotic therapy, or the surgical problem in need of correction in the operating room. However, today I would like to draw your attention to the whole *patient* and consider him as a functioning unit—recognizing that his return to full function may not occur until some time after his immediate surgical or medical crisis has passed. The fully functioning individual might be defined as one who is reasonably satisfied with each day's activity, whether at work or play, and who looks upon himself as making a full contribution to the society in which he lives. When such an individual encounters a medical or surgical crisis, he usually enters a period of declining function, which may rapidly or slowly culminate in an almost complete loss of function. At this point he is fearful that he may never again make any contribution to society and during this time he feels completely dependent upon his attending physician. Later, he passes the crisis and begins to regain lost function until at some point he might be said to again make his full contribution to society. Of course, there are patients who never regain full function, but for the purposes of this discussion I would like to consider only those who recover fully.

Convalescence

A useful way to look at such a patient may be found in Dr. Francis Moor's theory of four phases of convalescence.¹ In this classification, *Phase I* is that of the injury, a period characterized by loss of lean tissue and fat, with a relative gain in body water in the extracellular phase and changes of corticosteroid origin. These characteristically influence the kidney function with a tendency to withdraw water and salt from the renal tubule. The lean tissue loss, essentially a decrease in total body nitrogen, is roughly proportional to the severity of the injury. The patient is weak and listless, has no ambition or appetite, and wishes to be left alone. The wound, if present, accumulates an amorphous coagulum of water and solutes with leukocytes and monocytes and has no tensile strength. In a moderately severe injury, without an uncontrolled septic process, this phase may last two or three days.

Phase II is the so-called "turning point." This has been long-recognized on surgical and medical wards. The patient begins to take an interest in himself and his surroundings. Interns and residents often refer to it as "the positive lipstick sign" in female patients, because they begin to take an interest in their appearance. This period is characterized by a decrease in catabolism or loss of lean tissue, and there is a reduction in the absolute excretion rate of urinary nitrogen. There is an increase in gastrointestinal function and a return of the appetite. An important landmark is the diuresis of water and salt that occurs.

*Read at the meeting of the Middle Tennessee Medical Association, November 19, 1959, Dickson, Tenn.

†Medical Supervisor, E. I. du Pont de Nemours & Co., Inc., New Johnsonville, Tenn.

Such a phase may last for one or two days.

Phase III is that of spontaneous nitrogen anabolism. This is the phase of return of muscular strength and increase in muscle tissue mass lost during the earlier phases. Previous to this point, the exogenous caloric or food intake has had little influence on wound healing or recovery, but the nitrogen anabolism of this phase will not take place without an exogenous nitrogen intake. The alert attending physician will recognize this need and increase the patient's caloric intake by all possible means stepwise to at least 2400 calories per day. During this phase the patient is commonly sent home from the hospital, rehabilitative exercises may be started and a gradually increasing level of activity encouraged. This phase comes to an end when the lean tissue mass of the body has been restored to a level meeting the ordinary requirements of the individual. The wound, if any, is strong, but healing is still very active.

Phase IV is that of fat redeposition. A patient may continue to gain weight for several months after the injury. When the nitrogen build-up ends and the water balance becomes constant, further weight gain is probably due to deposition of fat. The wound has flattened and become white and the patient has usually long since returned to full activity.

Rehabilitation

Properly speaking, a program of rehabilitation should begin as soon as the patient has become aware of his situation. The first question the patient will ask himself is, "Will I be able to go back to my former life?" It is the duty of the attending physician to anticipate this question and give the patient a forthright answer of encouragement, even though the prognosis of the moment may be somewhat gloomy. Even where there is the obvious loss of a member, such as an arm or leg, the physician must always remember that the patient *must* return to some kind of life eventually. Particularly where a permanent disfigurement is present, the physician should have a definite plan of rehabilitation, leading to a permanent level of activity consistent with the patient's deformity. Only in this way will he be able intelligently to answer

the patient's question, "What will become of me?" Many deformed patients have been condemned to permanent psychologic as well as physical disabilities because they were allowed to incubate despondent thoughts of the hopelessness of their situation, while the physician concerned himself only with the day-to-day problems of their immediate survival. Rehabilitative activity does not intrude upon life-saving therapeutic measures, but must walk hand in hand with them if the patient is to return to full function with the least amount of difficulty.

During Phase III, the patient reaches a point where he leaves the protective discipline of the hospital and returns to his home. This period has often been regarded as one of gradually increasing activity that attains a normal degree at about the time the patient returns to work. Controlled studies, however, do not bear this out. Dr. John Lauer² reported on studies made by the Liberty Mutual Insurance Company which indicated that injured workers made excellent progress during the early stages of medical or surgical treatment, but when they were discharged from the hospital and returned home to convalesce progress stopped. Most industrial physicians are familiar with cases, such as the worker with an injured back who remains at home for several months, then reports to work feeling fine, only to be placed on limited work within a few days because of the weakness and atrophy of unused muscles of the legs, arms and back. Moss and Dohan³ reported on a survey of a sample of patients operated upon in a large university center and found that few patients had received detailed instructions from their surgeons regarding activity during convalescence. In the study reported by Lauer, failure of many patients to make satisfactory progress at home was often due to discouragement, fear of further injury or loss of confidence. Some of the prolonged disabilities were reported to be due to fixation of joints or atrophy of muscles due to prolonged disuse rather than the original injury.

Not all of the unsupervised convalescent patients suffered from inactivity. Bartels and Johnston¹ surveyed a group of post-operative patients and reported some of the

following: A 36 year old patient who returned to work on his fourteenth postoperative day resumed his hobby of weight lifting (180 lb.) on his 8th postoperative day. Another 55 year old patient returned to work on his forty-second postoperative day, but built a boat during his convalescence. A patient with a hernia repair went hunting and carried home a deer during his second postoperative week. No complications were reported.

As we can see, return to activity and return to work are not necessarily synonymous. The question of return to work, that is, gainful employment, is complicated by many sociologic, legal, cultural and personal economic factors. However, numerous controlled surveys have indicated that the most important factor is the opinion of the attending physician. But, physicians themselves are not in agreement on this question. Saffair⁵ reported on a study of insurance statistics and found that for a hemorhoidectomy the range of return to work advised was 3 days to 14 weeks. For a hernia repair, the range of return to work was 7 days to 15 weeks. For appendectomy, the range was 8 days to 14 weeks. Moss and Dohan³ reported on a group of 69 military trainees who returned to vigorous activity in 9 to 32 days following herniorrhaphy without complications.

The principle of early activity does not apply exclusively to convalescence from surgical treatment. Van Ravensway⁶ reported on 645 cases of virus pneumonia among military personnel. These were divided into two groups. In group I, nature was allowed to take its course. The men sat around until both they and the attending physician felt they were able to return to full work. In group II the men were placed on bed rest until their blood sedimentation rates reached 10 mm. in one half hour and then were started on step-wise reconditioning exercises. The patients in Group I averaged 45 days hospitalization with a 30% recurrence rate. On the other hand, the patients in Group II averaged 31 days hospitalization, with only a 3% recurrence rate.

Beyond this, however, lie the less tangible, but none-the-less important factors of motivation, security, desire for promotion

and fear of being left out of things. To illustrate the effect of these factors in industrial rehabilitation, I would like to present three case histories of actual disabilities and show how the background in each case influenced the course of treatment.

Case 1. This 26 year old white man was hired as a temporary employee with the understanding that if he did well he might be considered later for a permanent job in training as a chemical operator. He was somewhat immature, inclined to impulsive acts and characterized by his supervisors as being overly anxious to please.

One night he tripped over a 2 inch rubber hose and suffered a tri-malleolar fracture of the left ankle, thereby breaking the plant's safety record. (In order to understand the effect of this safety record, one must realize that this company has a safety record about eighteen times better than for the U. S. industry as a whole. For example, one of its Tennessee plants recently broke the world's safety record for man hours worked without an accident. This philosophy on safety is hammered at the men from every direction. Consequently, one of the problems faced by the attending physician when a man gets hurt is the deep sense of personal failure that he feels.) Therefore, in addition to the pain of his fracture, this patient also had a "let-down" feeling, plus the conviction that he would now never be considered for a permanent job. The fracture involved the articular surface of the ankle joint with some displacement of the posterior lip of the tibia, so he faced the very real possibility of some degree of permanent partial disability.

The patient was so despondent over his sense of failure that he stated, while in the ambulance on his way to the hospital, that it would have been better to have fallen off a bridge. It was obvious that efforts at rehabilitation should begin even before the fracture was reduced! Accordingly, it was explained to him both by members of the supervisory staff and the plant physician that this did not have any direct bearing on his job, that he would receive the best possible medical care and that his job now was to work as hard as possible to get himself back to full function.

Because of his apprehension and anxiety, it was not possible to reduce the fracture under local anesthetic, so pentothal anesthesia was utilized. An apparently good closed reduction of the displacement was obtained and the leg was placed in a long-leg bent-knee cast. As soon as the cast was dry he was placed on crutches and returned to work. However, he was restricted from his original work area at the plant because of the loose gravel surfaces, which might have been hazardous with his crutches. He was reassigned to assist the guard chief and quickly learned his new duties, which consisted largely of sitting at a desk and checking trucks in and out of the plant gate. He responded favorably to this pro-

ductive activity and his mood changed rapidly to an optimistic one, particularly since he was told that he could begin his theoretical studies as a chemical operator as soon as we could put him in a walking-cast. Five weeks later the first cast was removed and a "boot" type cast applied to just below the knee joint. A day later a walking heel was applied and the patient was transferred back to his original work group. Although he was not allowed to climb up in the works, he attended all the training classes and kept up well in his theoretical studies. Three weeks after application of the boot, it was removed and the patient was started on daily hydrotherapy with active exercises. He was required to wear an Ace bandage and a Thomas Heel was applied to his safety shoe. At the time of removal from the cast, there was no edema of the ankle joint, nor did any appear subsequently. The only limitation was that of dorsiflexion of the foot, with slight pain in the joint on forced dorsiflexion. The physiotherapy consisted of twice daily half hour soaks in hot water, followed by massage by the patient and active forced dorsiflexion. No passive exercises were attempted.

After three weeks of daily soaks and exercises, during which time he continued his previous work assignment, dorsiflexion of the foot had returned to within 5 degrees of the other foot and there was no pain on forced motion. He was then returned to full work and advised to continue the hot soaks and exercises at home. It is now five and one-half months since his injury. He is still wearing the Thomas Heel and his only complaint is that of rarely a mild ache in the joint after prolonged standing. He has since received two promotions and is looked upon by his supervision as a good average employee.

Case 2. This 35 year old supervisor suffered a very severe chemical exposure which resulted in 2nd and 3rd degree burns of his abdomen, scrotum, penis, perianal area and both feet. Emergency treatment was carried out to relieve shock at the plant dispensary and he was later transferred to a local hospital.

Again, we faced the problem of a sense of failure on the part of the individual, plus the strong feeling that he was "out of things." During the next few days it became apparent that the majority of his burns would heal well, but that a deep burn on his left foot would require a skin graft.

A decision was made to delay the skin graft until more granulation tissue had the opportunity to form. Consequently, a rather prolonged hospital stay ensued. During this time, the patient suffered intermittently from a feeling of depression, "uselessness" and a general feeling of being out of things. To counteract this mood change, as soon as he had recovered from the systemic reaction to his burns, he was given free access to the administrative communications of plant management. This material was brought to him regularly at the hospital. Later in his hospital stay, he was given an actual assignment by plant man-

agement. He completed part of this assignment before leaving the hospital. We felt we were only partly successful in this phase of rehabilitation, and later the patient himself commented that we should have given him more regular assignments, closely related to his work.

Approximately 6 weeks after his original burn, a split thickness skin graft was applied to the dorsum of his left foot. Two weeks later, he returned to half-day work at the plant. There, we faced a problem because of the location of the skin graft on his foot. He could not wear safety shoes, yet his assigned area required them. Accordingly, an office was set up for him in the administration building and he was assigned special responsibilities which did not require him to leave his desk. I would like to emphasize that this was a productive job in which certain other supervisors were relieved of some of their paper work so they could devote more time to other problems. Therapy at this point consisted of daily cocoa-butter massage of the skin graft plus continuous elevation of the foot at his desk. He was not allowed to bear weight but used crutches. His other burns had almost completely healed at this point. About two weeks later, it was thought the graft was strong enough for him to wear safety shoes and he began wearing them for about two hours at a time, gradually increasing this until he was able to go for a full day without discomfort. As soon as he was able to wear his shoes full-time, all restrictions on work were withdrawn and he was advised to continue the cocoa butter massage at home. It is now six and one-half months since his original burn and he is able to work without discomfort. The graft, although deeply pigmented, has taken well.

Case 3. This 31 year old electrical worker gradually became aware of low-back pain, which was markedly aggravated by coughing and straining and tended to radiate to the left hip. On examination, he was found to have spasm of the left erector spinae muscle group, a 30 degree limitation of straight leg raising on the left and markedly diminished ankle reflex on the left. There were no sensory changes. There was no history of injury.

The background situation was as follows. This man was one of several who had been hired at this new plant with the idea that they might possibly be considered later for higher rated jobs. There was definite competition among these men as to who might make the best showing. In addition, this patient had gone into debt to build a home, and his family was living in a partly finished house, upon which he was attempting to work in his spare time. The patient was informed that there was a possibility that he had a ruptured intervertebral disc and there were two courses of treatment open. One was to consider an operation and the other was to treat it conservatively with bed rest, traction, and medication. He elected to give the conservative medical program a trial.

Although this was not an industrial case, the

patient desired very strongly to return to work at the earliest possible date and it was decided to utilize his job situation in rehabilitation as soon as his acute symptoms had subsided. He was placed in traction at home by his attending physician, with his own bed elevated at the foot and two pound weights attached to his left leg. A mephenesin compound was administered q.i.d., with codeine for relief of pain and muscle spasm. One week later the traction was discontinued and he remained at bed-rest with bed boards under the mattress. Approximately three weeks after the original onset of his pain, he returned to limited work, wearing a back brace. In this case, the department had a large backlog of work, checking blueprints, a type of work in which this man was quite skillful. His supervisor welcomed him back and he was set to work at a desk with a straight back chair, checking blueprints. He visited the plant dispensary twice daily for diathermy and physical evaluation, and was advised to wear his brace at all times. Ten days after return to work, he was started on exercises under supervision at the plant dispensary. These exercises consisted of straight leg raising, plus back flexion of the "knee hugging type." During this time his symptoms continued to subside and he noted a progressive increase in flexibility of the spine. A week later, he began "sit-up" exercises with the knees bent. At first, he was unable to sit up in this position, but with repetition he was able to sit up fully. One month after the original onset of symptoms, he was re-evaluated and found to have no muscle spasm and only about a 10 degree limitation of straight leg raising on the left. The ankle jerk had returned to normal. He had no pain in his back or hip while wearing the back brace. At this point, he was doing about twenty "sit-ups" twice daily.

His work limitation was eased and he was allowed to lift objects weighing less than 20 lb., as well as engage in some electrical work. During his working hours he wore his back brace, but removed it as soon as he returned home. There followed a period of gradually increasing activity on the job, until he was placed on full heavy work with his brace. About two and one-half months after the onset of his original pain, he was allowed to do full work, wearing his back brace half of each working day. About that time, he went on two weeks vacation, during which time he engaged in normal home activity without his brace. When he returned from his vacation, he went on full work without the brace. It is now 7 months since his original disability. He is able to do his work without difficulty and has no symptoms, other than an occasional "tired" sensation in the right or left hip or low back, particularly when getting out of bed. Incidentally, this man is a heavy industrial electrician and his work involves some rather heavy straining at times. He is looked upon by his supervision as a topnotch employee.

Comment. We felt that more was accomplished than the healing of injury in these cases. In the case of the fractured ankle, it is quite likely if this young man had remained at home during the major part of the healing process, he would have missed the opportunity for training in a job that he wanted very badly. In the case of the supervisor, we were partly able to overcome the psychologic effects of a deep sense of personal failure with regard to the safety program, in a person who was basically somewhat unstable emotionally. However, we felt that we could have done more in this case to integrate him more fully into the activities of the plant, even while in the hospital—something that the patient desired very strongly. In the case of the electrical worker, we were able to help the patient avoid a prolonged period of enforced inactivity, which would have imposed a real hardship on his family and might have resulted in some handicap for him in competition with his fellow workers for promotion.

Summary

In closing, I would urge you to consider the importance of the post-hospitalization phase of convalescence. It should be a time of ever increasing physical and psychologic activity of a productive nature. It can only be so if the doctor closely supervises the patient's activity. A few patients (such as the deer hunter) need to restrict their activity, but most will require encouragement to a step-wise increase in physical activity. The increased activity will stimulate an increased appetite to accelerate the building up of nitrogen. At the earliest opportunity, they should be returned to their jobs. If they work at a plant with a medical staff, the rehabilitative services of this staff should be utilized to the utmost to avoid loss of promotional opportunities and economic waste to the patient. If such medical services are not available, the attending physician should make himself familiar with the patient's work and assist his supervisors in fitting him into a limited work situation. In most cases, they will be eager to have him back at work, but need the guidance that only a qualified physician can give.

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The Prophylaxis of Streptococcal Infections in Patients with Rheumatic Fever—A comparison between Sulfadiazine and Erythromycin. Mildred T. Stahlman and Floyd W. Denny, Jr., A.M.A. J. Dis. Child., 98: 1959.

The relationship between group A streptococcal infections and subsequent occurrence of rheumatic fever has been well established. It has also been shown that if streptococcal infections are prevented or treated effectively, then initial and recurrent attacks of rheumatic fever are prevented.

Sulfadiazine and penicillin are the two most commonly used agents in prophylaxis of rheumatic fever. Although sulfadiazine has reduced streptococcal infections and recurrence of rheumatic fever the protection is not complete and 5 to 10% of patients on this drug develop reactions to the drug. Penicillin prophylaxis has proved more effective than sulfadiazine, but 2 to 5% of patients on this drug develop reactions.

Erythromycin, which has been shown to be effective against group A streptococci and relatively nontoxic, was chosen as the drug to investigate because of the shortcomings of penicillin and sulfadiazine.

While the number of patients observed in the

study was small, the similarity of the two study groups were such as to allow comparison of the effect of the two prophylactic programs.

Seven out of 25 patients receiving sulfadiazine had positive throat cultures for group A streptococcus and one out of 25 patients receiving erythromycin had positive throat cultures. One of the 7 on sulfadiazine and the one patient on erythromycin, with positive cultures, were taking their medications irregularly. The one patient on erythromycin with a positive culture had no rise in antistreptolysin O titer, while 3 of the 7 patients on sulfadiazine with positive cultures had significant rise in antistreptolysin O titer. It was in this latter group that the only recurrence of rheumatic fever and rheumatic heart disease appeared.

There were no untoward reaction to either drug in this study. At the present time erythromycin is more expensive than sulfadiazine or penicillin and must be given daily to be effective. It was felt that these disadvantages were outweighed by the need for another effective prophylactic agent against group A streptococci, and that it, erythromycin, appeared to be superior to sulfadiazine in this study. (Abstracted for the Middle Tennessee Heart Association by Norman M. Cassell, M.D., Nashville.)

The author describes his use of a psychologist-assistant in his practice. This paper is of interest since it places the psychologist in a proper setting, as contrasted to the activities of some psychologists independent of the close supervision of a psychiatrically oriented physician.

THE PSYCHOLOGIST-ASSISTANT IN PRIVATE PRACTICE*

M. W. LATHRAM, JR., M.D., Memphis, Tenn.

There has been a great deal of debate and discussion in recent years in regard to the status of the clinical psychologist. This paper will attempt to do two things: first, to give an example of how a clinical psychologist's talents can be utilized and, secondly, to discuss some of the mechanics in attempting to operate a private practice smoothly with the help of the psychologist-assistant. Very little that can be found in the literature in regard to either subject. Perhaps this has been overlooked because it has been considered to be relatively simple, or because of the fact that each of us must work out our own fate in the matter of managing a private practice.

Is there anyone here who would question that the private practice of psychiatry is quite difficult, possessing many problems that the other psychiatrists do not have? Perhaps the most important is the matter of time and how it can be effectively utilized. Then there is the tremendous responsibility in the practice. Furthermore, there is the attention which must be given to numerous details. How many times have all of us been in the position of being interrupted several times during the important psychiatric interview with the patient? If your problems are not the same as mine, why do I get the complaints from some of our mutual patients which I am sure you get also that "that doctor spent 45 minutes on the phone and 15 minutes listening to me." Yet most of you show the same courtesy as I do by interrupting an interview for phone calls from physicians and clergyman, the hospital charge nurse, or those calls labelled emergency.

Now let us get to the psychologist-assistant and his or her duties and assignments. Not the least of these is the giving of psychometric tests. There are three tests my assistant gives quite regularly: the Minnesota Multiphasic Personality Inventory, the Wechsler-Bellevue Intelligence Scale, and the Rorschach. Numerous articles have appeared in the literature about the Minnesota test. During the last five years, I have made it a practice to give each new office patient the opportunity of taking this test. At worst the test uncovers immediately the literacy or illiteracy of the patient, the patient's attitude toward the psychiatric examination, and gross distortions of personality. In my own experience, within broad limits, the test is fairly accurate in enabling one to discern the following traits: depression, overconscientiousness, obsessive-compulsive traits, strong dependency feelings, hints of sexual deviations, and behavior problem traits. Then, some general idea may be obtained regarding the ego structure. Additional advantages are that it is doing something more for the patient than just an interview with the psychiatrist, it gives the patient something to do while waiting, it is perhaps psychotherapeutic in that it is giving the patient an objective opportunity to take stock of himself.

The other tests utilized are more selective. How many of us in examining our patients would frequently like to get an idea of the intelligence quotient? Of course the history and the psychiatric interview are most important but the intelligence tests of today are very widely accepted and even expected by many. Examples are those of a child of any age in school who is doing

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poorly as far as grades are concerned, or an employee who shows some intellectual deficiencies in his work. The Wechsler-Bellevue test is also of help in evaluating a chronic brain syndrome or suspected organic brain damage. With the help of a psychologist-assistant this can be done as early as the first office visit by the patient.

The Rorschach is another test which has found wide acceptance. Some of you do your own Rorschach tests. It is too complex to prescribe frequently; I average perhaps one every two weeks. My psychologist (who has a masters degree and who has been with me five years) has been giving Rorschach tests for the past three years and we continue to use a Ph.D. consultant. It is perhaps a simple matter for you here to call on a clinical psychologist in your city and have an appointment for your patient for a Rorschach test. However, the best psychologists are about as busy as we are, and there is again the matter of time and convenience to be considered. Outstanding indications for the use of the Rorschach test are diagnostic problems, particularly those involving borderline psychosis, whether the patient is a candidate for psychotherapy or not, in medicolegal problems, and at times serial Rorschach tests are needed to evaluate objectively the patient's progress or its lack in psychotherapy.

In addition to the psychometric testing of new patients, my psychologist is utilized in getting the "intake" social history. Relatives are regularly interviewed as well. Occasionally fairly close but inappropriate relatives want to get in on the case (during the first visit) believing they have a lot of information to give the doctor that he can not get otherwise. The psychologist-assistant can be utilized very effectively here. He obtains valuable information and furthermore provides time for the psychiatrist to get to the real points of the patient's problems facilitating the initial interview to be more of an emotional experience that would otherwise be the case in many instances. Several examples have occurred in my own experience where greatly disturbed relatives have appeared demanding to see the doctor. This has occurred with both office and hospital cases. If these relatives are seen by the doctor there is a breach of

loyalty to the patient or closest relative. It makes the matter much simpler if the psychologist-assistant is assigned to take down this so-called "important information."

Next comes the matter of phone calls. Surely all of you buffer yourself against phone calls by getting your secretaries to handle as much of this as possible. I know that some of you have a special hour or two a day for phone calls. Many calls fall into an intermediate range, I believe; calls more important than a secretary should handle but ones which the psychologist-assistant can manage since she has a more intimate knowledge of the case. Next is the matter of the refilling of prescriptions. If I cannot be reached for several hours, permission is granted to my assistant for prescribing tranquilizers only and I am notified of them the following day. My assistant of course has the knowledge of my patients who would have tendencies to misuse the drugs prescribed. This privilege should not be granted to a secretary.

There are other matters of a secretarial nature such as taking dictation, getting letters quickly into the mail, and other secretarial duties that the psychologist-assistant can perform, particularly when the secretary is overly burdened otherwise.

Now let us consider hospital patients and how the psychologist-assistant can be of help. If you are one who makes hospital rounds twice daily, and I do not believe many of you are, your hospital patients getting shock treatments remember you and you get direct information as to how they are doing during the latter part of the day. If not, then you have been accused of not seeing your patients and of spending almost no time with them. Relatives are visiting to add to the problem. The information in regard to patients comes from the nurses only, and matters sometimes of a semi-emergency nature occur which the nurses may overlook. To patients in the hospital for shock treatment, the psychologist-assistant is identified with the psychiatrist and his or her course in the hospital moves more smoothly. For patients in the hospital not getting intensive treatment the psychologist-assistant can act in the role of psychotherapist to a varying degree, depending on the needs of the patient and the psychia-

trist. We have already reached the conclusion that the clinical psychologist may perform psychotherapy under the direction of a psychiatrist. There are some hospital patients who reject the psychiatrist and who have good identification with the psychologist-assistant. This has been particularly true of the patients getting shock therapy and those who have needed discipline. Similarly, the psychologist-assistant may legally perform individual psychotherapy on an office basis if it is under the psychiatrist's direction.

With one exception my assistant has been kept busy enough otherwise without her participation in individual psychotherapy. Two years ago a young man, a college student of 20, was successfully treated in the hospital for an acute schizophrenic episode. After a remission the patient continued to have a great deal of anxiety and there were a number of schizoid traits. Moderate daily amounts of chlorpromazine were quite helpful and necessary. There was a great deal of hostility and resentment toward me. The patient as well as his parents requested

that he be interviewed by my assistant rather than myself. Interviews were conducted at monthly intervals for 6 months. The only thing I did during this time was to occasionally shake hands with the patient and to continue his prescription for chlorpromazine. Of course the patient's course was carefully followed indirectly and he was given a follow-up Rorschach test confirming his improvement. The patient was able to successfully resume his college work.

In summary, a brief account of a private practice with the emphasis on the utilization of a psychologist-assistant has been described. It is my opinion that by utilizing the psychologist-assistant the patient is given more adequate and more thorough care, a more thorough understanding and diagnosis of each patient is obtained, that there is more protection to both patient and doctor, that there is a better satisfied patient and his family, and, not to say the least, there is more time for the psychiatrist to use in leading a more normal life himself.

For the doctor considering the extent to which he should provide for laboratory studies in his office this outline may be helpful. It suggests those tests which may be of aid in diagnosis and yet whose accuracy can be established by continuous and careful supervision on his part.

THE OFFICE LABORATORY*

ELGIN P. KINTNER, M.D., Maryville, Tenn.

The physician's constant problem in connection with his office laboratory is adequate supervision of the procedures performed. The time necessary to check his technician for the control of quality, to become proficient in recognizing microscopic abnormalities, and in keeping up with new innovations in laboratory medicine are the demands on a physician practicing laboratory medicine. To turn these professional duties over to a technician always results in a serious loss of efficiency of the laboratory since technicians are trained to work under the supervision of a physician. Any physician, because of his training and background, with a little brushing up on technic, is better qualified to supervise laboratory procedures than a technician. There is a shortage of technicians in laboratory medicine, but if the physician were to train his own office help to do the technics, he would not be bothered by the shortage and he, in addition, would have a much better technician.

I. What laboratory tests should I do in my office? The answer resolves itself very easily to the fact that a physician should do only those tests which he can adequately supervise himself. He must answer the following questions.

- A. How much time can I devote to training and checking personnel?
- B. How frequently will I do the procedure, so that proficiency will be maintained?
- C. How much technical detail can I delegate to my office help and how much must I do?
- D. How convenient is a pathologist's office to which patients may be referred?
- E. How willing am I to attend work-

shops, visit laboratories and to read journals?

II. How can I simplify my laboratory procedures and keep better quality control of them?

A. Urinalysis.

1. Three-in-one dip-type stick gives readings for albumin, glucose and pH. This preparation will not pick up galactasuria and cystinuria while Clinistest will.
2. Check urinometer for calibration. It should read zero in distilled water at the proper temperature. Mosenthal and concentration-dilution tests are good kidney function tests.
3. Have centrifuge, microscope and patient handy to reduce the time needed. Centrifuged urine concentrates the sediment and decreases missed findings.
4. Disposable urine bottles reduce the cleaning problem.
5. Give detailed instructions for obtaining a clean "catch specimen."

B. Complete blood count.

1. Look at all of your *blood smears* under low power magnification of the microscope and use oil only to verify the identification of cells. (Ask the pathologist to clip the slides of your hospital patients to your report slip. Then look at the smears.)
 - a. Estimate the total white count and the differential picture.
 - b. Estimate the platelets.
 - c. Estimate abnormal forms of red cells, hypochromia, nucleated red cells and stippling.
 - d. Look for abnormal white cells.
 - e. Discuss problem slides with your pathologist.
2. *Hemoglobin or hematocrit.* (These give essentially the same information and it is not necessary to do both.)
 - a. A hand hemoglobinometer gives an accuracy of plus-minus 0.5 Gm.
 - b. A photoelectric colorimeter is justified if about 50 determinations a month are performed. (The photometer can be used also for de-

*From the Blount Memorial Hospital, Maryville, Tenn.

terminations of blood sugar and NPN.) However, this method for hemoglobin requires the use of micropipettes, test tubes, and calibration checks of the instrument. The cyanmethemoglobin method is best and reagents can be purchased from supply houses.

- c. The hematocrit value can be changed into an approximate hemoglobin value from a chart. The equipment is simple and does not require pipetting or standardization. An estimation of the WBC. can be made by inspecting the buffy coat. The centrifuge is noisy and cannot be used for any other determination.

3. In office practice the WBC. in most instances is not necessary since an estimate can be made from the smear and the buffy coat. Leukopenias of less than 5,000, leukocytosis of more than 15,000 can usually be detected by inspection.

C. Sedimentation Rate. Use the Westergren or Wintrobe method depending upon which one is used in your community.

1. The Westergren method has higher normal values, but the error due to anemia is less than an uncorrected Wintrobe. The Westergren method is simpler. Wintrobe tubes are harder to fill and harder to clean. They will permit centrifugation, however.
2. The main source of error in either method is not having the tubes perfectly vertical.
3. Vacuum tubes for collection eliminates the use of the syringes.
4. C-Reactive Protein gives similar information and is fairly simple to master. Kits are available together with positive control serum.

D. Occult Blood. Test tablets are available in kits.

1. Stool, vomitus, spinal fluid, serum, urine can be tested.
2. Centrifuge first to throw down the red cells if the supernatant fluid only is to be tested.

E. Bleeding Time. Use the average of three sticks. Follow technic carefully. Do not wipe off the drop of blood as it forms, but blot it gently. Bleeding time is prolonged in platelet deficiency, vitamin C deficiency, after aspirin medication, and in purpura.

F. Tourniquet Test.

1. This is a very useful test in conjunction with the bleeding time.
2. This is a sensitive test to determine the degree of vitamin C deficiency. In the face of mild arthralgias and spontaneous ecchymoses, a positive test usually means a vitamin C deficiency. Such patients may have malabsorption of vitamin C from the gastrointestinal tract.

G. Coagulation time and Prothrombin time. These tests are very important in studying problems of bleeding, but are usually too difficult for the average technician when the tests are done infrequently.

H. Gram Stain. This stain takes but a minute and can easily be done as the doctor talks to the patient. It gives a great deal of information:

1. Technic: Smear, dry, and fix with flame. While holding the slide over sink, flood the slide with these successive reagents, washing off the former with the latter and allowing about 15 seconds between reagents:
 - a. Each month mix a fresh supply with an crystal violet (equal volume of 5% alcoholic crystal violet and 1% sodium oxalate solution in water).
 - b. Gram's iodine Solution.
 - c. Acetone-alcohol Solution.
 - d. Tap water rinse.
 - e. Safranin 0.5% in water, stain for one minute.
 - f. Blot with bibulous paper and examine under oil immersion.
2. Expect to determine the presence of predominate throat organisms in sore throat:
 - a. Gram-positive cocci in streptococcus sore throat.
 - b. Absence of bacteria in "viral throats" treated with antibiotics.
 - c. Mycelia and budding yeast organisms (large gram-positive structures) from white membranes resulting from antibiotic treatment.
3. Gram-positive cocci in feces where there is an overgrowth due to antibiotics.
4. Experience is required to determine presence of Vincent's infection and gonorrhea and a great deal of experience is required to diagnose diphtheria.

I. Basic Metabolic Rate. Success in this test depends on a knowledge of the mechanical details of the machine.

1. Each recording should have a segment

- where pressure has been placed on the bag before and after the patient has been hooked up. This will establish the presence of leaks in the system.
2. Slipping of the stylus and pulley system can cause error in results.
 3. The B.M.R. is still a good test and reasonably accurate.
- K. Tests sometimes done in physician's office, but not recommended as office procedures unless the technician is being supervised by a pathologist or a physician with special training.
- a. Blood sugar
 - b. Nonprotein nitrogen
 - c. Cholesterol
 - d. Prothrombin time
 - e. Coagulation time
 - f. Serologic test for syphilis
 - g. Rh determination
 - h. "Febrile" agglutination reactions
 - i. Pregnancy (frog) testing
 - j. Cultures
 - k. Sensitivity testing
 - l. Gastric analysis

CASE REPORT

A Spot in the Right Eye*

William F. Murrah, Jr., M.D., Memphis, Tenn.

No doubt the title of this case report, "A Spot in the Eye," leaves the listeners most unimpressed by a very common and "garden-variety" symptom or finding as experienced by ophthalmologists in clinical practice. However, before this case report is completed I believe you will agree that whereas the subject and history are most commonplace the etiology and findings were quite the contrary.

On August 29, 1956, an intelligent, apparently healthy, 64 year old white man was seen in the office for a routine eye examination. Aside from feeling that his glasses might need changing he also stated that for the past few days he had been aware of a "spot" in the vision of his right eye. This spot in his right eye, he thought, was causing the vision in that eye to seem not as clear as before and along with this there was a "flickering" of his vision and a slight difficulty in focusing the right eye. Aside from these symptoms he felt healthy and had no other complaints.

On ocular examination his vision without correction was 20/30" in each eye and with O.D. +.50 x 90 = 20/20+ and O.S. +.50 = 20/20, and for near with +2.25 add, Jaeger 1 in each eye. External examination was negative. Muscle balance—orthophoric distance and near, NPC 8 cm. Following dilation with 10% *Neo-synephrine*, the aqueous and lenses appeared to be quite clear. Some vitreous threads, strings and floaters were seen O.U. The fundal details were clearly seen. A Grade II sclerosis of the vascular tree was present; no hemorrhages or exudates or other retinal lesions were discovered. Intra-ocular pressure with Schiøtz tonometer was 19 mm. Hg. O.U. Since the objective examination of both eyes were essentially normal, visual fields were performed. Form fields, 1 white/333 mm. and central tangent screen fields 2 mm. white/1000 mm., taken on that day very clearly and definitely made the diagnosis of the lesion responsible for this man's subjective symptom of a "spot in his right eye." These chartings showed an oval shaped homonymous scotoma of about 20 in the right lower quadrant. This defect appeared almost perfectly congruous on the form field but slightly incongruous on the central field.

It was my feeling at this time that the lesion was most likely vascular in origin, involving the optic radiations in the left parietal lobe or in left occipital lobe. The patient was informed of this and was told that his case and findings had

been discussed over the phone with a well qualified neurosurgeon, Dr. E. C. Schultz, who had expressed the belief that neurosurgic evaluation of a lesion causing no larger scotomas than was present would reveal nothing.

The patient had hypertension but it had been well controlled on *Rauwolfia serpentina*. He thought it would be well to go by the office of his internist, Dr. Otis Warr, for a check-up and this was done that afternoon. The findings on the examination by Dr. O. Warr were a B.P. of 138/80, negative physical and neurologic examinations, and negative laboratory blood and urine findings except for pus in the urine which he had had since his prostatectomy in 1953.

Chest X-ray film, however, showed an infiltration in the midportion of the left lung field at the level of the 4th rib. Other chest films dating back to 1953 and 1955 showed no disease in this area.

The next day this patient was admitted to Baptist Hospital and was seen in consultation by Dr. E. Semmes, neurosurgeon, and Dr. Gwin Robbins, thoracic surgeon. It was the opinion of Dr. Semmes that the lesion in the brain was either vascular or metastatic from the lung, but that the diagnosis could only be made with certainty if the lung lesion were found to be malignant. On August 31, 1956, a bronchoscopy and bronchogram by Dr. Robbins demonstrated no lesion or tumor, but secretions removed by bronchoscopy were reported by the pathologist to show cells consistent with tumor cells.

Follow-up ocular examination with tests for visual acuity and visual fields 4 days later (one week after the initial ocular examination) showed normal visual acuity and a change in the scotoma which had shrunk in size.

On September 7, 1956, one week following the bronchoscopy examination, it was decided that a thoracotomy be done on the left lung. At operation an adenocarcinoma, Grade II, of the lung with mustard-seed size metastasis all over the pleura and pericardium was found.

This patient expired on March 23, 1957. He had been given nitrogen mustard postoperatively in the fall and again in February, 1957, but it is doubtful if this prolonged his life to any extent.

It is interesting to note that this patient for 40 years had smoked many cigars per day and also used cigarettes, but gave up smoking in early 1953 when he developed a chest difficulty as a result of a pulmonary infarct following retro-pubic prostatectomy. He resumed smoking in 1956.

Summary

This case clearly points out the value of good visual field tracing. Confrontation fields would have been entirely inadequate. One must always keep in mind that subjective visual symptoms can occur as a result of disease posterior to the globe itself, and accurate visual field tracings are most

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necessary in the diagnosis, with evaluation and localization, of the causative lesion involving the optic pathways, nerves, chiasm, tracts, radiations, or visual cortex.

Discussion

DR. E. C. SCHULTZ, Memphis: Dr. William F. Murrah is to be commended for this important work, for it demonstrates again how minute lesions of the posterior chiasmal visual pathways may frequently be demonstrated by meticulous eye and field examinations.

From the viewpoint of the neurosurgeon, the visual fields and tangent screen examinations are examples of an almost completely congruous right inferior quadrantanopia. This results, we believe, from a left posterior parietal lesion, in this case representing a metastatic carcinoma from the lung. It may be of interest to you that the left parietal region is the most common site for metastasis from the lung. Likewise, it is more common for carcinoma of the lung to metastasize to the same side of the brain which it occupies in the lung. Metastasis along the vertebral veins, so well described by Batson, is believed to account for this homolaterality. Such metastasis, either by direct encroachment upon the visual fibers or their blood supply, result in scotomas, usually unformed visual images that appear as dark forms or as bright lights in the field. We call such an experience an occipital lobe or visual-sensory seizure. It is of localizing importance, for it indicates a parietal-occipital lesion.

Some of the visual phenomena may be bizarre and difficult for neurosurgeons to understand. Patients usually complain of visual disturbances in one eye though homonymous defects exist. Defects in the right fields are more commonly appreciated than those in the left for reasons not clear to me. Our patient had a homonymous right quadrantanopia. Operation was undertaken and metastatic carcinoma from the lung was removed. The time from the onset of visual symptoms to our consultation was one month. At the patient's request operation was delayed one month. He expired seven months after onset of symptoms.

Patients with visual field defects due to neurologic disorders are commonplace in neurosurgery. If we consider the optic chiasm, by far the most

common lesion is an aneurysm of the carotid system. The field defect is dependent upon the site and severity of compression and the fields are variable. Usually the diagnosis is easy, for the patient has had, in addition, a subarachnoid hemorrhage or a third nerve paralysis, and is verified by carotid arteriography.

Pituitary tumors characteristically produce upper bitemporal defects by pressure on the inferior chiasm. When the tumor breaks through the diaphragma sellae, encroachment upon the optic tract results in a contralateral homonymous hemianopia in addition to the pre-existing field defect. When this occurs, it is accompanied by extraocular nerve paralysis.

Lesions of the optic tract usually result from aneurysms of the circle of Willis. Less frequently the optic tract is involved by neoplasms and rarely by demyelinating diseases such as multiple sclerosis. The field defect produced is an incongruous homonymous hemianopia.

Optic radiations are most frequently involved by vascular accidents such as cerebral hemorrhages, thromboses and emboli. Vascular anomalies, such as arteriovenous abnormalities, are prone to occur here. Neoplasms, particularly malignant ones, commonly occur in the temporal lobes. These occasionally produce visual phenomena of a transient nature. Usually the patient sees formed images, in contrast to the unformed ones of parietal-occipital distribution. Homonymous, but usually incongruous fields, are seen involving the upper quadrants.

Lastly, the parietal and occipital visual fibers are most commonly affected by vascular accidents, such as thromboses of the middle cerebral or posterior cerebral and basilar arteries. In two instances we have had patients with basilar artery disease experience sudden complete visual loss which was transient, leaving them with a complete homonymous hemianopia. The occipital pole was surgically exposed in one patient and found to be infarcted. The other patient at postmortem was proved to have a posterior cerebral thrombosis. As for field defects in the parietal-occipital areas, we usually encounter congruous homonymous ones.

An infinite variety of visual disturbances may be produced by trauma and are dependent upon the site of injury.

STAFF CONFERENCE

Vanderbilt University Hospital* Eclampsia

DR. FRANK E. WHITACRE: The treatment of eclampsia is not uniformly satisfactory. This fact coupled with confusion as to the etiology of eclampsia has resulted in numerous treatments which have been suggested for this condition. The patient who will be presented today by the staff of the Nashville General Hospital, will probably bring up disagreements as to management. Dr. Bain, please present the clinical course and management which was carried out.

DR. ROBERT S. BAIN: This is the case of a 31 year old colored woman, gravida VIII, Para V, Abortus I, and Stillborn I, who first presented herself at the Nashville General Hospital prenatal clinic on Nov. 9, 1959. She gave a history of having had her L.M.P. on April 9, and her E.D.C. was Jan. 16, 1960. Menstrual history prior to and between pregnancies was described as normal.

Previous Obstetric History. She has had 7 previous pregnancies, with a history of hypertension, edema and excess weight gain in the first pregnancy. The second pregnancy terminated at 3 months as an abortion. The third pregnancy was described as normal and without complications. The fourth pregnancy was accompanied by excessive weight gain, edema, and elevated blood pressure, but no history of eclampsia. The fifth pregnancy was without complications but a stillborn infant resulted. This delivery was at Nashville General Hospital. The record gave no cause for fetal death. The labor was protracted but delivery was spontaneous. Blood pressure readings were within normal limits and there was no proteinuria or pretibial edema. The total weight gain during pregnancy was 20½ pounds. The sixth and seventh pregnancies were without complications. Labor and delivery were said to have been difficult with both. The last pregnancy produced the largest baby which weighed 8 pounds and 2 ounces. The smallest baby of 6 pounds was stillborn. There was no access to hospital records except the one delivery at Nashville General Hospital in 1955 which resulted in the stillborn.

Family History. There was a family history of hypertension, cardiac disease, cancer and multiple pregnancies.

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Medical History. The medical history was not significant except for hypertension and pre-eclampsia which were said to have existed with previous pregnancies. There was no history of blood transfusions, operations, or accidents. The present gestation had been characterized by a moderate degree of nausea and morning sickness in the early months of pregnancy, but no appreciable vomiting and no vaginal bleeding. The review of systems was noncontributory.

Physical examination. (Initial clinic visit.) T. was 98, P. 90, B. P. 118/90, and weight 130 lbs. (Usual weight 125 lbs.) Examination of the abdomen revealed a symmetrically enlarged uterus with fetus of approximately 31 weeks gestation in cephalic presentation. Fetal heart tones were heard at 150 per minute in the L.L.Q. The head was "floating." Examination of the extremities revealed slight pretibial edema. No varicosities were noted. Pelvic examination showed that the cervix was soft and undilated with evidence of mild cervicitis. There were no adnexal masses. Clinical evaluation of the pelvis showed the pelvis to be adequate with measurements within normal limits.

Laboratory reports. Urine was negative. Packed cell volume was 34%. Chest X-ray was normal. Blood: the serologic test for syphilis was negative; blood Rh was positive.

Course. This patient was given iron, calcium, and routine dietary instructions, and an appointment to return to the prenatal clinic in two weeks. She was seen in the prenatal clinic on four subsequent visits prior to admission to the hospital. The first visit after the initial clinic visit was at approximately 33 weeks gestation. Her weight was recorded as 129 pounds, representing a loss of 1 pound. There was a trace of pretibial edema, but the urine test for albumin was reported as negative. The B.P. was recorded as 112/80. Her course was thought to be satisfactory.

The next clinic visit was at approximately 36 weeks gestation. Her weight was recorded as 135½ pounds. There was a trace of edema, but the urine test for albumin was negative. Her blood pressure was 120/80. The patient was progressing normally.

Approximately one month elapsed before her next clinic visit at which time the patient was at term with the head in the pelvic inlet and the uterus slightly irritable. The general appearance was one of puffed facies and general lethargy. She complained of headache and blurring of vision for the previous three days. No epigastric dis-

ERRATA

Staff Conference, 53:21, (January) 1960

Coagulation rather than *bleeding* in the title; page 21, and under "summary," page 25, "... prolonged *coagulation* times, "rather than . . ." "prolonged *bleeding* times, . . .".

tress was reported. Her weight was recorded as 148 pounds, representing about a 13 lb. weight gain in the previous four weeks. The B.P. was 150/110, and there was 2+ pretibial edema. Urinalysis revealed a 1+ urine albumin. Funduscopic examination was essentially normal.

Admission to hospital. This patient was admitted immediately to the hospital with a diagnosis of pre-eclampsia. It was classified as moderate pre-eclampsia because it met the clinical criteria for such a classification.

On admission to the hospital this patient was placed on our routine pre-eclamptic management, as follows:

- (1) Routine admission laboratory work.
- (2) Daily urine albumin and daily PCV.
- (3) T.S.P. and A/G ratio, NPN, creatinine, uric acid.
- (4) Weigh daily.
- (5) Foley catheter in place.
- (6) Record intake and output.
- (7) Absolute bed rest.
- (8) Side rails to bed and elevate head 18 inches.
- (9) No visitors.
- (10) Toxemia tray in room (containing emergency medications and tracheotomy instruments).
- (11) Antibiotics to prevent systemic and infections of the genitourinary tract.
- (12) Phenobarbital gr. 1 every 4 hours for sedation.
- (13) Serpasil 0.1 mg. every 6 hours by mouth.
- (14) Apresoline 25 mg. every 6 hours by mouth.
- (15) Serpasil 2.5 mg. intramuscularly stat.
- (16) Fluids orally to 3,000 ml. daily.
- (17) Diamox 250 mg. orally twice a day for 3 days.
- (18) Blood pressure and pulse every 4 hours recorded on graphic chart.
- (19) 1000 caloric low salt diet.

The admission urine report was essentially negative except for a trace of albumin. The admission blood report showed a PCV of 38% and a Hgb. of 11.65 Gm.

Additional studies reported on the day after admission revealed a creatinine of 1.5 mg., uric acid 3.1 mg., NPN. 22 mg., TSP 6 Gm. with albumin of 4.4 Gm. and globulin of 1.6 Gm. per 100 cc.

This patient was kept at bed rest on the above treatment for 4 days, at which time Apresoline was discontinued and the Foley catheter was removed. The patient had responded well in that she had had an average urinary output of 2800 ml. per day with an average intake of 3000 ml. per day orally, and her B.P. was stable at 135/90. There was only a trace of pretibial edema noted and her general appearance was better than on admission to the hospital. During the first 4 days the daily urine albumin was reported consistently as a trace, and the PCV had shown an increase from 38 to 45 percent. The patient was kept at bed rest with continued use of phenobarbital gr. $\frac{3}{4}$ every 4 hours and Serpasil orally.

During the day of Jan. 15, the fifth hospital

day, uterine irritability increased and spontaneous rupture of the membranes occurred at 7:10 p.m. Two different blood pressure readings at that time were 130/100 and 126/90. Fetal heart tones were recorded as 136 in the L.L.Q. The patient was removed to the labor suite with contractions of good intensity occurring every 3 to 5 minutes. Vaginal examination showed 3 cm. cervical dilatation with 70 to 80% effacement and vertex at —1 station. Nembutal gr. 3 was given orally. Approximately 1 hour later a B.P. of 154/100 was obtained, and Serpasil 2.5 mg. was given intramuscularly.

The uterine contractions increased in intensity and became regular 2 to 3 minutes apart. The B.P. readings at that time ranged from 150/110 to 160/124. A Foley catheter was placed in the bladder, and an intravenous of 1000 ml. D-5-W was started. Sodium Amytal $7\frac{1}{2}$ grains was administered slowly intravenously in an attempt to make convulsions less likely. The urine showed a heavy trace of protein. The B.P. responded to the Sodium Amytal and readings of 110/86 to 130/90 were recorded. At 10:35 p.m. on Jan. 15, (some 45 minutes after intravenous Amytal) the patient began complaining more with uterine contractions and the blood pressure returned again to elevated levels. Serpasil 2.5 mg. intramuscularly was repeated at this time. The patient was lethargic and complete dilatation of the cervix was apparent at 2:30 a.m. A cyanotic, limp male infant was delivered spontaneously who responded to resuscitation in 3 to 4 minutes. The patient's B.P. just prior to delivery was recorded at 130/100. Immediately after the third stage of labor, while still on the delivery table, the patient had a generalized convulsion. Sodium Amytal gr. $3\frac{3}{4}$ was given intravenously immediately. No oxytocic was given. The patient was then removed to a private room with the fundus well contracted. A heavier, more sustained convulsion followed shortly thereafter and another $3\frac{3}{4}$ gr. of Sodium Amytal was given intravenously. After establishing an airway, mucous was removed by suction and the patient was in a coma. The head of the bed was elevated 18 inches and nasal oxygen was given at 6 liters per minute. The patient was placed on a plan of treatment consisting of intravenous fluids 1000 ml. every 8 hours, Sodium Luminal intramuscularly gr. 2 every 6 hours, Serpasil 2.5 mg. intramuscularly as often as needed to control elevated blood pressure. Sodium Amytal gr. $3\frac{3}{4}$ to $7\frac{1}{2}$ was to be used intravenously to control hyperirritability and the convulsive state. Combiotic 2 cc. was administered intramuscularly twice a day to combat any systemic infections. The patient was turned every 2 hours.

Some 4 hours after delivery the patient had a brief episode of hyperirritability but no definite convulsion. This was alleviated by intravenous Amytal. No other convulsions were noted in the postpartum course. During the next 24 hours, the patient continued to be comatose with deep, regular respirations. During this time intramuscular Serpasil 2.5 mg. was given on an average of every

4 to 6 hours and Sodium Amytal gr. 3¾ intravenously was given at intervals between the doses of Serpasil to maintain adequate sedation. Blood pressure levels ranged from 140/110 to 150/120.

During the first 24 hours after delivery, the patient had a measured urinary output of 3300 ml. with an intake of 3000 ml. During the second 24 hours after delivery the patient's course and medications remained about the same, however, the measured urinary output was only 1280 ml. with an intake of 2800 ml. Much fluid was lost in perspiration and mucous from the upper respiratory tree. Toward the end of the second postpartum day, the patient became less comatose, and required less medication to control hyperirritability. Deep tendon reflexes were only slightly hypoactive at this time. Intramuscular Sodium Luminal and intravenous Sodium Amytal were discontinued and intramuscular Serpasil 2.5 mg. only was used to lower the elevated blood pressure. Serpasil had to be given at hourly intervals three times until a response was obtained and thereafter 2.5 mg. Serpasil every 4 to 6 hours was given intramuscularly. The B.P. was controlled at a level of 130/110 to 140/120. This patient had a relatively narrow pulse pressure throughout.

The blood chemical studies showed normal findings on the second postpartum day.

During the third postpartum day, the patient showed marked improvement with short periods of awakening. Upper respiratory reflexes were good and the airway was removed and the nasal oxygen discontinued. The patient slept most of the day requiring only intramuscular Serpasil 2.5 mg. to control blood pressure. Urinary output for the third postpartum day was 1600 ml. with an intravenous fluid intake of approximately 3000 ml. Blood chemical studies on the third postpartum day were within normal limits except for a slight lowering of serum potassium. Forty milliequivalents of KCL was given in the intravenous fluids.

On the fourth postpartum day the patient was able to sit on the side of the bed and take fluids and juices orally. One thousand ml. D-5-W intravenously was given to supplement her oral intake. The Foley catheter was removed as the urinary output was quite adequate. The B.P. was stable at 130/90 with the patient on 0.25 mg. Serpasil by mouth every 6 hours. Subsequent blood chemical studies showed the serum potassium had returned to normal limits and all other findings remained unchanged. Auscultation of the chest revealed no evidence of any pneumonic process. The patient had remained afebrile throughout the postpartum course.

On the fifth postpartum day the patient was up and around and took a regular salt-poor diet and the Serpasil was reduced to 0.1 mg. orally every six hours.

The patient was then discharged from the hospital. She was sent home on Serpasil 0.1 mg. orally every six hours and is to return in one

week to the postpartum clinic for follow-up evaluation of her blood pressure.

DR. WHITACRE: Dr. Robert Chalfant has been in charge of the Obstetric and Gynecologic service at Nashville General Hospital for the past three years and I think he should open the discussion with reference to the method of treatment used.

DR. ROBERT L. CHALFANT: This patient illustrates one of the problems seen in any general hospital. First, the patient did not report for prenatal care until approximately the 33rd week of gestation. Second, patients frequently fail to appear regularly for the appointed visits. This patient was last seen at the 36th week. Then one month elapsed until her admission at which time she realized that she was having difficulty.

At Nashville General Hospital we have a standard procedure in an effort to evaluate the use of the hypotensive drugs. At the present time, Serpasil is being used and we are impressed with its results. We believe that the blood pressure can be controlled safely and within desired range with dosage variation. Intramuscular administration has the disadvantage of requiring 60 to 90 minutes before getting the maximum effect. In acute toxemia occasionally intravenous Apresoline is used immediately, because the effect is more rapid, and then we usually change to Serpasil.

This patient who had postpartum convulsions may have been overtreated. There has been some criticism as to the amount of sedation used, and rightfully so. The problem is that attending physicians feel it necessary to prevent convulsions. As to whether this is as important as we once believed is debatable.

Emphasis should again be made on the necessity of good prenatal care and early hospitalization for the toxemic patient. Preventive medicine is our best approach to this problem at the present.

DR. WHITACRE: As Dr. Ellis is the attending man on Obstetrics on this service, at this time, I think he should express an opinion.

DR. JAMES W. ELLIS: Pre-eclamptic toxemia is a rather common cause for admission. This is probably due to the fact that early admission to the prenatal clinic and regular clinic visits are not the rule.

Hospital treatment has been, for the past three years, rather standardized and has been generally successful in preventing eclampsia. The usual case of eclampsia presents herself for admission already in or almost in this condition.

Therefore, it is surprising that the particular patient under discussion had two postpartum convulsions in spite of a period of treatment before delivery and heavy sedation at the time of delivery. The sedation or anticonvulsant used was Sodium Amytal and it is debatable whether other anticonvulsants such as narcotics or magnesium sulphate would have been more effective.

Later postpartum management was successful in preventing more convulsions. The patient's course in regard to intake and output and blood pressure control was carefully and successfully regulated. The heavy barbiturate sedation was continued longer than probably was necessary and necessitated an airway as well as nasal and oral suction. I do not think more convulsions were likely after twenty-four hours postpartum judging by the other aspects of the clinical course. The fear of further convulsions probably led to what some might consider to be overtreatment.

I feel, all aspects considered, that the patient was well treated.

DR. WHITACRE: Dr. Hibbitt, you have acted as attending man on this service. Would you like to comment on this problem?

DR. B. K. HIBBETT, III: I want to congratulate Dr. Bain on the completeness of this presentation. It has been my impression since I have been on the visiting staff at the Nashville General Hospital, that the incidence of toxemia has been reduced by admitting these patients at the very first sign of elevation of blood pressure, edema, or excessive weight gain.

There have been many programs designed for treatment of eclampsia, in fact one program was to do nothing but place them at bed rest and let nature take its course. This I do not consider adequate. Any one of a number of programs can be used, but I think they should all have four objectives: (1) to sedate the patient in order to control convulsions; (2) to relieve vasoconstriction; (3) to promote diuresis; and (4) to correct

the hemoconcentration. With these four objectives in mind, I think that one can successfully treat an eclamptic patient.

DR. WHITACRE: Dr. Williams, I am sure that in your experiences at the Vanderbilt University Hospital and at other hospitals you have noticed changes in the management of severe toxemia.

DR. EDWIN L. WILLIAMS: The cause of toxemia in pregnancy is not understood well and, therefore, treatment is only symptomatic. However, until the time that we have practical knowledge as to the underlying cause of the disorder in pregnant women we will continue to treat it by efforts at controlling symptoms as they arise. There has been a tremendous change in the treatment but this change has resulted not from a change in concept, but rather from an improvement in therapeutic drugs. I think it particularly important that hypotensive agents such as Serpasil and Apresoline be given a thorough trial. I want to commend the General Hospital service for this evaluation of some of our therapeutic agents.

DR. WHITACRE: The problem is obviously the control of blood pressure and the seizures without heavy sedation of the patient. Would you please, Dr. Peerman, consider this point?

DR. C. GORDON PEERMAN: In the treatment of hypertension in eclampsia and severe pre-eclampsia, I have found cryptenamine (Unitensin) the most effective drug. When immediate reduction in blood pressure is mandatory, it may be administered intravenously. It may be administered intramuscularly if there is no immediate need to reduce the blood pressure.

Veratrum preparations do not act primarily as ganglion blockers, but their action is on the vasomotor centers. It is possible therefore to reduce the blood pressure without heavily sedating the patient. This reduces the chance of aspiration pneumonia and asphyxia.

Care should be exercised in the use of diuretics in the treatment of toxemia. We have seen more than one case of electrolyte imbalance as the result of diuretic treatment without careful electrolyte evaluation.

In severe pre-eclampsia and eclampsia I

feel that we should not lose sight of our primary goals: (1) control of convulsions, (2) stabilization of the blood pressure, and (3) delivery.

DR. WHITACRE: I think that this subject is a timely one as the agents that effect blood pressure by one means or another are more commonly used. Everyone is in agreement that prevention of severe tox-

emia requires prevention of pre-eclampsia through prenatal care. Once the condition has developed, symptomatic management is our only recourse. As indicated in the discussion, this consists in the control of convulsions, the reduction of the blood pressure to physiologic levels, the encouragement of a reasonable urinary output and emptying the uterus by the most conservative means.

CLINICOPATHOLOGIC CONFERENCE

University of Tennessee College of Medicine†

Myocardial Fibrosis: Unknown Etiology

D. M., a 54-year-old colored man, was admitted to John Gaston Hospital on Jan. 8, 1954, for possible digitalis intoxication, giving a history of nausea, vomiting and progressive dyspnea.

The present illness began in 1949. He was admitted on Jan. 17, 1949, with the history of the sudden onset of dyspnea on exertion and orthopnea 3 days prior to admission. The next day he developed sharp left upper quadrant pain which moved into the left lower chest and was accentuated by coughing and deep breathing. He was treated in the night clinic with diuretics, which relieved the dyspnea; however, he then developed muscle cramps. He was admitted the next day at which time he was found to have normal vital signs. There were bilateral crepitant rales at the lung bases. Cardiac rhythm was regular, and there were no murmurs or cardiomegaly. There were periodic contractions of the abdominal muscles and fasciculations of the muscles of the legs. No peripheral edema was present. There was fixation of hips and the joints of the thoracic, lumbar and sacral spines. The prostate was slightly enlarged. An electrocardiogram showed left ventricular strain. A chest film revealed that the heart was at the upper limits of normal in size, with a nonspecific contour. The lungs had generalized emphysema with scattered fibrotic changes and small diaphragmatic adhesions at both bases. Laboratory data was not remarkable. He was treated with saline and intravenous calcium gluconate, with prompt relief of symptoms, and discharged on the 7th hospital day with the diagnosis of low salt syndrome secondary to diuresis and heart disease, type undetermined.

He was followed in the Medicine Clinic on ammonium chloride and a low-salt diet, but continued to have dyspnea on moderate exertion. He was re-admitted on Feb. 16, 1949, with a history of progressive dyspnea and occasional chest hepatomegaly, but no cardiomegaly. Electrocardiogram was again compatible with left ventricular strain. The lung fields were clear. A circular line of density about the right hilar region suggested an air cyst about 5 cm. in diameter. While in the hospital he was digitalized and symptoms improved considerably.

On March 1, 1952, he was again admitted with muscle cramps and hypotension following vigorous diuretic therapy. Physical examination showed bilateral rales and a rapid heart rate, but no cardiomegaly. An electrocardiogram was inter-

preted as being compatible with subendocardial injury and either ischemia or digitalis effect. He was treated with hypertonic saline solution and discharged on the 4th hospital day.

The next admission was on June 25, 1952, after the sudden onset of severe, squeezing, nonradiating precordial pain which was not relieved by nitroglycerine. Physical examination revealed a low-grade fever, expiratory wheezes and bilateral fine, moist rales. The heart was slightly enlarged to percussion. The rhythm was rapid and regular. No murmurs were heard. Laboratory data was within normal limits. An electrocardiogram was interpreted as showing low voltage but otherwise not significantly changed. A later electrocardiogram was interpreted as being suggestive of a high lateral infarction of undetermined age. The patient was treated with morphine, nasal oxygen, aminophylline and penicillin. He responded rapidly to this regimen and was discharged after 11 days in the hospital.

On June 4, 1953, he was again admitted with a 3 day history of progressive dyspnea. On the day of admission he developed a dull pain in the left chest, which radiated into the left side of the neck and into the left arm. The pain was brief but recurrent. He was found to have bilateral rales and a rapid regular heart rate. Routine laboratory data was essentially normal. The transaminase level was 12 units. Bilirubin and the Bromsulfalein test were within normal limits. Chest x-ray and barium by mouth revealed the heart to be of normal size and contour. Lung fields were clear. Fluoroscopy, likewise, revealed the heart to be of normal size. There was a slight unusual convexity best seen in the left anterior oblique near the apex where pulsations were diminished. X-ray examination of the lumbo-sacral spines and pelvis revealed the heart to be of normal size. There was a slight unusual convexity best seen in the left anterior oblique view. Pulsation was normal except for an area along the left ventricular border near the apex where pulsations were diminished. X-ray films of the lumbo-sacral spines and pelvis revealed ankylosis with almost complete disappearance of both hip and sacroiliac joints. There was ankylosis of the small diarthrodial joints of the spine and calcification of the ligaments of the spine. The findings were pathognomonic of the rheumatoid arthritis. Electrocardiogram again was reported as showing low voltage, anterolateral infarction of undetermined age and anterior wall injury and ischemia. He was treated with morphine, oxygen aminophylline, anticoagulants, Thiomerin and digitalis. He continued to have some tightness in the chest but at time of discharge was asymptomatic and feeling well.

He was admitted for the last time on Jan. 8, 1954, with a 2 to 3 day history of progressive dyspnea and orthopnea, nausea, vomiting, and epigastric pain. Physical examination revealed a temperature of 98.8° F., pulse 92 per minute, respirations 24 per minute and blood pressure

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120/80 mm. of Hg. There was a few scattered rales at both lung bases. Cardiac rhythm was regular with occasional premature ventricular contractions. The point of maximum impulse was outside the mid-clavicular line in the 6th intercostal space. No murmur was heard. The liver was down 2 fingerbreadths. There was a 3 + edema. Hematocrit was 42%, the white blood count was 9000 per cu. mm., with a normal differential. Urinalysis showed a 2 + albuminuria with sediment containing 2 granular casts per high power field. Blood urea nitrogen was 29 mg. per 100 cc, CO₂ was 40 meq/L, Cl were 80 meq/L, Standard Test for Syphilis, negative and Protein Bound Iodine was 6.7 mcg. per 100 cc. Circulation time (arm to tongue) was 30 seconds and venous pressure was 170 mm of water. A chest film revealed the heart to be greatly enlarged with an almost globular shape, compatible with a generalized failure pattern. Lung fields showed a slight increase in vascularity, but no fluid. Leaves of the diaphragm were slightly depressed. Electrocardiogram showed a nodal or low atrial tachycardia with frequent ventricular premature contractions and some fusion beats and changes compatible with an old anteriolateral infarction. Evidence of ischemia were less than previously noted. Later electrocardiogram showed a wandering pacemaker and multifocal ventricular premature contractions, with an occasional run of ventricular tachycardia.

The patient was put on a potassium chloride solution and diuretics and digitalis was discontinued. Electrolyte imbalance was corrected with intravenous ammonium chloride. His condition continued to be very poor, with rather frequent vomiting, marked dyspnea and orthopnea and episodes of mental confusion. On redigitalization the frequency of ventricular premature contractions decreased, but the heart rate remained rapid. Heart rate became slower on increased dosage of digitalis and the addition of quinidine. The B.U.N. began to climb and his condition deteriorated. On Jan. 20, 1954, the blood pressure dropped. He failed to respond to vasopressors and died on the fourteenth hospital day.

DR. J. P. MILNER: There are several points in the protocol which deserve particular attention. The X-ray finding of destruction and fixation of the hips and spine was considered diagnostic of rheumatoid arthritis or spondylitis. This mainly indicates that the patient was a rather inactive individual because of his deformity. The scattered emphysematous lung changes and alternating areas of fibrosis would indicate that he had had pulmonary emphysema for some extended period of time with the secondary changes which go with this condition. The patient was treated as a case of congestive heart failure on the basis of

dyspnea and chest pains over a period of several years during which time the heart was never considered as enlarged. Congestive heart failure without some enlargement is rare. The man may have had his respiratory difficulties on the basis of chronic pulmonary disease. We are not told of any episode which would indicate that he had any acute inflammatory episode in the lungs or chronic bronchitis to cause the emphysema or contribute to this chest pain. A possibility for the chest pain is multiple small pulmonary emboli which might well develop in an inactive person and be symptomatic in a man with already diseased lungs.

A number of interesting electrocardiographic changes put a somewhat different light on the case. In 1949 (his first admission) he had a pattern of left ventricular strain. This rather nonspecific change may be interpreted differently by different observers, but does give indication of organic heart disease. This change is usually associated with hypertension and left ventricular enlargement from other causes. We have no history of hypertension or evidences of valvular disease to put strain on the left ventricle. This pattern persisted until the next-to-the-last admission, when the electrocardiogram was interpreted as subendocardial ischemia and injury with change in the voltage. Also at this time he developed a dull type of chest pain radiating to the neck and left arm, which is certainly more suggestive of myocardial damage than the previously described pains. He also developed evidence of an anterior lateral infarct during this admission. The final electrocardiogram showed marked irritability of both the atria and ventricles, probably a result of the digitalis intoxication. From the electrical pattern of the heart this is a process of rather slowly progressing myocardial damage of a rather non-specific nature.

The X-rays showed a relatively normal sized heart for the first 4 years of the man's illness and then began to show an outline of left ventricular enlargement and suggestion of an aneurysmal dilatation. Finally the configuration was a globular one of general dilatation.

The possibilities are: first, myocardial in-

farct with possible aneurysm formation; second, rheumatoid arthritis; third, multiple pulmonary emboli; fourth, emphysema with fibrosis, with death most likely occurring from myocardial failure due to myocardial infarct.

DR. CYRUS C. ERICKSON: At autopsy, the musculoskeletal changes were essentially as have been described on X-ray and clinical evaluation. The main changes were in relationship to the heart. The weight was 600 gm. with mostly left ventricular enlargement and some thickening of the right ventricle. The heart was rather flabby and globular. There were no valvular changes to account for the enlargement and the coronary arteries were widely patent. The endocardium of the left ventricle was slightly thickened. Microscopically there was widespread myocardial damage in the form of loss of fibers and replacement by material not definitely fibrous in character and in some cases having a resemblance to the original fibers in size and shape, but being a pale pink granular material in staining reaction. These changes were found in conjunction with relatively normal fibers and in many instances lymphocytes and occasional neutrophils were present.

The pulmonary changes were those of bullus emphysema and some fibrosis. The organs generally were congested as evidence of the heart failure, particularly the liver. Incidental findings were multiple

non-ruptured "berry" aneurysms of the cerebral arteries and calcium deposits in the kidneys.

This is an unusual form of myocardial disease in the absence of coronary artery alterations. There are some superficial similarities to a myocardial infarct in the anatomical material and the condition (or group of conditions) mimics an infarct clinically in some cases. The condition has been called by a number of names, including myocardiopathy, chronic myocarditis, and endocardial necrosis.

The etiology of the condition is not known and, in fact, may be multiple. The possibilities are a rather low grade inflammation from any number of causes, healing of a specific inflammatory process of the myocardium as a viral myocarditis or some deficiency of vitamins or other substances.

The course of the illness is usually fairly long, which may be because the heart seems to be involved in a patchy fashion and not to any significant degree in the early stages of the process. Later, as more heart muscle is destroyed, the heart failure becomes more and more resistant to treatment and the condition becomes more like a myocardial infarct clinically.

The final episode in all of the cases we have seen has been one of progressive, congestive heart failure similar to this particular case.

President's Page



HARMON L. MONROE

The medical profession in Tennessee and in the United States faces its greatest challenge of all time.

The social planners and those who would federalize medicine are trying very hard to establish an entering wedge which will open the road to complete Federal control of the health services. The Federal Government is already overburdened with debt and otherwise cannot sufficiently handle the great task involved with medical care.

We are still battling on the Forand Bill (HR 4700). If it becomes law, estimates by reliable sources are that social security taxes could go as high as 20 percent.

We must do everything in our power to prevent such action. This can be done by: (1) *Electing* intelligent, well-informed persons to represent our people in Congress. (2) *Furnishing* the law makers with facts regarding health matters. (3) *Special attention* to pertinent problems of patients in the aged group and make every effort to obtain proper voluntary health insurance coverage for such persons. Doctors should at all times keep in mind that they should render the best possible type of medical service and at a fee which the under-privileged, aged and others in such circumstances are able to pay.

The Tennessee State Medical Association through its Legislative Committee and key national legislative contact physicians, is working in close liaison with the AMA. At a recent task force meeting in Chicago, the draft for a concentrated program for the next 90 days was set forth. Your state medical association is working to obtain at least 450 resolutions from county medical societies and other organizations over the state in opposing the Forand Bill.

Each of our county medical societies is being asked to draft a resolution opposing the Forand Bill and to submit it to the Congressman representing that particular district. Our staff and Legislative Committee members are asking Tennessee doctors to write letters to their Congressmen stating opposition to the Forand Bill and setting forth their reasons.

There is a possibility that the proponents of the Bill may attempt to water it down to the extent that it does not appear particularly effective. This would probably eliminate some objections. Obviously, the danger in this is that many Congressmen who have committed themselves to oppose the bill, may be lulled into believing that a watered down Bill would not be objectionable and would be one that medicine and other organizations opposing the bill could live with. *This is the most dangerous phase.*

Don't fail to keep in mind that the proponents of measures such as the Forand Bill and other federalized programs for medicine, can continue to present these measures before the Congress, and can continue to do so year after year until they win what they propose. Those of us in organized medicine and others who oppose these measures, can only lose once. That's why these are the perilous days. Therefore, contact your Congressman and state your views why you oppose these socialistic proposals.

If the medical profession is going to be able to defeat the creeping encroachment of more Federal control over the practice of medicine, we must make more friends among the people that we serve.

H. L. Monroe, M.D.

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FEBRUARY 1960

EDITORIAL

MYOCARDIAL DAMAGE IN RHEUMATIC HEART DISEASE

The present emphasis on the physiologic and biochemical approach to clinical medicine, as well as the paucity of pathologic studies in publications serving the generalist, pediatrician and internist, tends to minimize some of the important contributions now being made by those primarily interested in pathology. A very important contribution has been made by George E. Murphy in a recent pathologic study of rheumatic heart disease.¹

Beginning with the work of Neuman in 1896 and continuing through the more recent studies of Gross and Ehrlich in 1934, the primary lesion of rheumatic heart disease, the Aschoff body, has been considered a lesion of the connective tissue and as a

result many have included rheumatic fever in that group of disorders characterized by alterations of the collagenous connective tissue.

In 1949, Murphy first produced myocardial lesions very closely resembling Aschoff bodies by repeated, suitably spaced, focal, cutaneous infections of rabbits with group A streptococci of different serologic types. Subsequently, patients who had died with rheumatic heart disease were found to have Aschoff bodies of two types in the myocardium, (1) fragments of damaged muscle cells, and (2) syncytial masses of myogenic origin that had proliferated from inside the sarcolemma into the tracks of disintegrating muscle cells. In the beginning these syncytial masses appeared to represent regeneration of heart muscle cells. Finally, he demonstrated auricular rheumatic lesions presumably originating from striated heart muscle and from the smooth muscle of the subendocardial smooth muscle-connective tissue zone.

This concept of the myocardial origin of Aschoff bodies has tremendous clinical significance. The results of valvulotomy have shown that this operation is of considerable benefit to properly selected patients. The most suitable candidates are those whose initial lesion is chiefly stenosis without, or with a minimal degree of insufficiency, who have shown disabling symptoms of cardiopulmonary dysfunction for a fairly short period of time. Aschoff bodies are obvious evidence of relatively intense myocardial disease. Extensive myocardial involvement can produce cardiac dilatation which results in relative mitral insufficiency. This explanation accounts for some of the poor results in those with clinical findings of severe mitral insufficiency since the primary lesion may be diffuse myocardial damage and not valvular deformity.

It is pertinent that 70 years ago Krehl concluded that progressive changes in the myocardium are more important than valvular defects in the development of congestive failure in chronic rheumatic heart disease. Rothschild, Kugel and Gross, in 1934, in a clinicopathologic study of patients who died with rheumatic heart disease concluded: "While the causal relation of active myocarditis to circulatory failure is very

¹Murphy, George E.: On Muscle Cells, Aschoff Bodies, and Cardiac Failure in Rheumatic Heart Disease, Bull. New York Acad. Med. 35:619, 1959.

striking in the first two decades of life, it is not sufficiently appreciated that in cases of rheumatic heart disease in adults of the third, fourth, and fifth decades of life a recurrent rheumatic myocarditis rather than healed mechanical defects may in the majority of instances be the precipitating cause of the circulatory failure." Patients in the sixth and seventh decades also may have active rheumatic disease of the myocardium which is not suspected clinically.

Murphy's excellent research on the probable development of Aschoff bodies from muscle cells in active rheumatic heart disease indicates that when these bodies are present severe muscle fragmentation and disintegration already have occurred. The damaged myocardium results in ventricular dilatation, cardiac decompensation, and finally death. Emphasis on the myocardial rather than the endocardial lesion in this disease will result in a better understanding of its pathology and, in the long run, better management of the patient.

A. B. S.



SOON IT WILL BE TOO LATE

Not in the vein of melodrama but rather in a realistic and historical appraisal of the future, it can be said that the beginning of the end of freedom in medical practice may be determined shortly. The Forand Bill has never been on the floor of the Congress; it has been in the House Committee to date. If it remains there it will "die" and a new bill will need to replace it in the future. The pressures are such that it seems probable the Bill will be called out of Committee by a vote of the House. If it once reaches the floor, it is believed that political pressure by large voting groups, the A.F. of L. and C.I.O. for example, which have supported it vociferously, will be irresistible for practical purposes.

On the other hand, it is thought that because of opposition to the bill by a segment of Congress the Bill might be so "watered down" that it would be more acceptable to, or be more difficult to oppose by the opponents of the Bill. These changes would appear to be related especially to the costs of such legislation in terms of increased Social Security taxes. Here has been one

item to which certain thinking legislators have been opposed. If the more thorny points are removed, it will be still more difficult for the thinking block of legislators to withstand the pressures of political expediency and emotionalism. An argument for less specific measures or details might be that the White House Conference on Aging set for 1961 will more clearly indicate what the actual needs are for the aged segment of the population. These have not really been set forth as yet for the lack of any study which casts light on the topic. (An aged group has always been with us. The awareness of the increasing size of this portion of our citizens has set this fact in an emotional focus which is leading to action without real knowledge of the scope of the problem, what means are at hand to handle it locally, and other aspects which should be studied.)

Irrespective of which course is followed, —whether the Forand Bill as it now stands, or as a diluted version of it,—the same danger to freedom in medical practice exists. *If the principal of health care is once incorporated into the Social Security Program the road is open to obtain the benefits written into the Forand Bill and still more by the mere expedient of amending legislation.* The tax structure has been changed in the past and disability clauses have been written into the Program. (At the moment there are in the House Ways and Means Committee three bills redefining disability and three bills to liberalize the age 50 requirements and waiting period for disability benefits.) Therefore we as citizens and physicians should recognize that any legislation writing into the Social Security Program the principle of health care opens the road to federalization of medical care through amendment after amendment.

All good citizens, as defined by the Honorable Thomas B. Curtis and quoted on these pages last month,¹—this should include the members of our profession—should recognize this hour and make their voice heard. Our representatives in Congress admit they do not hear from doctors. Silence means acquiescence! The legisla-

¹ Editorial: Should Doctors Be Politically Active. J. Tenn. M.A. 53:29, 1960.

tive committees of the county societies have been requested by the T.S.M.A. Legislative and Public Policy Committee to cooperate in education of the profession and in action. When this occasion arises each member should play his part. This may be the last opportunity to maintain freedom in medical practice. If health care gets into the Social Security Program, each amendment will demand merely a delaying action. If the Forand Bill or any facsimile of it were defeated in this Congress, the time gained might permit enough study of the problem of medical care of the aged to permit a more rational approach to it rather than through a federal agency or program.

R. H. K.

DEATHS

Dr. Benjamin Howard Robbins, 55, Nashville, died January 10th at Vanderbilt University Hospital. Dr. Robbins was head of the department of anesthesiology at Vanderbilt. His death was the result of a heart attack.

Dr. J. C. Anderson, 95, Rockford, died December 30th. Dr. Anderson originally practiced medicine in Jefferson County.

Dr. Samuel Sullenberger, 47, Dandridge, died January 16th in a Knoxville hospital as the result of a heart attack. Dr. Sullenberger was president of the National Flying Physicians Association.

Dr. J. G. Cottongim, 67, died December 21st at his home in Jackson.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Roane County Medical Society

The regular meeting was held on January 26th at the Oak Ridge Hospital. The meeting was preceded by a dinner after which the president of the Tennessee State Medical Association, Dr. Harmon L. Monroe, discussed important phases of HR 4700 (The Forand Bill).

A film entitled "A Matter of Fact," having to do with medical examiner legislation, was shown. Dr. Paul Guerin, formerly Deputy Medical Examiner of Maryland, discussed "The Physician's Viewpoint." Mr. James J. Mynatt, Legal Analyst, Legislative Council Committee, discussed "The Legal and Legislative Viewpoint." A large num-

ber of physicians and lawyers were in attendance.

Greene County Medical Society

The Society met on January 5th at the Elks Club in Greeneville. The president, Dr. Rae Gibson, presented his inaugural address and appointed the several important committees of the Society. Members discussed a letter and phases of action to be followed when a grievance is presented to the Society. Functions of a Grievance Committee and steps to take when a member of a medical society is disciplined, were discussed.

Nashville Academy of Medicine and Davidson County Medical Society

The Society's monthly meeting was held in the auditorium of the new Lentz Public Health Center in Nashville. The Society discussed proposed revisions of the Constitution and By-Laws. Dr. John Lentz, Health Officer of Davidson County, described the services and facilities at the Lentz Public Health Center. The members were then conducted on a tour of the new center.

Knoxville Academy of Medicine

The Society met on January 12th in the Academy's building. The program was presented by the Public Service Committee and the topic of discussion was "Some Benefits of Organization in the Medical Profession."

Memphis-Shelby County Medical Society

The Society met on January 5th in the Institute of Pathology Building. A meeting of the House of Delegates preceded the meeting. Dr. Nobel W. Guthrie, assistant director of the Memphis and Shelby County Health Department, discussed "Ringworm Of The Scalp In School Children." Dr. Joseph O. Priestly discussed the same condition as seen in private practice.

Chattanooga-Hamilton County Medical Society

The Society met on January 5th at the Chattanooga Golf and Country Club. Dr. George K. Henshall was installed as president for 1960. Dr. Augustus McCravey was installed as president-elect of the society, and Dr. Charles W. Hawkins was named

secretary-treasurer. The retiring president, Dr. Carl A. Hartung, rendered a final report to the Society.

Consolidated Medical Assembly

The Consolidated Medical Assembly of West Tennessee conducted its regular monthly meeting on January 5th at the New Southern Hotel. Guest speakers were Dr. Sam E. Stephenson, Jr., and Dr. Lindsey K. Bishop, both of Nashville.

NATIONAL NEWS

The Month in Washington

(From the AMA Washington Office)

Overshadowing all other developments from the standpoint of the medical profession was the flat prediction from a high Administration official and key Lawmaker that Congress this year would vote some sort of liberalization of the Social Security program.

There was general agreement that Congress would broaden the Social Security plan for permanently and totally disabled persons by removing the requirement that a person has to be at least 50 years of age before receiving such benefits.

However, there were forecasts of even further liberalization. House speaker, Sam Rayburn (D., Texas.) said monthly cash benefits also may be boosted. On the other hand, the House leader said he believed a majority of the House Ways and Means Committee were opposed to the disputed Forand bill that would finance partial health care for the elderly through higher Social Security taxes at an estimated extra cost of \$2 billion annually. As a result, he said he did not think "there was a great deal of chance for it." But the AFL-CIO and some Congressional backers of the highly controversial bill were urging Congress to approve it this year.

Arthur S. Flemming, Secretary of Health, Education and Welfare, asserted that the Administration is planning to offer a program aimed at assisting needy aged to meet health bills, but gave no details. The official noted that the Administration has

firmly opposed the Forand-type approach on grounds it would destroy the rapid progress in meeting the problem through private means. But Flemming, in a speech before the American Association of University Teachers of Insurance, said the Administration has an obligation "to stay with it" until it arrives at a plan.

Congress has extended the Social Security program every presidential election year since 1948, and 1960 appeared to be no exception. Whether or not the issue of medical care for the aged will be included was one of the big question marks early in the session.

Shortly before Congress convened, the Boards of Trustees of the A.M.A. and the American Hospital Association, in a joint resolution, pledged to "mobilize their full resources to accelerate the development of adequately financed health care programs for needy persons—especially the aged needy—" at state and local levels.

The Boards said Forand-type legislation is "not designed to assist the needy, since they apply to all Social Security beneficiaries and exclude the majority of needy persons, who are not eligible for Social Security benefits."

Following the action, Dr. Louis M. Orr, A.M.A. President, and three other A.M.A. officials—Dr. E. Vincent Askey, A.M.A. President-Elect, Dr. F. J. L. Blasingame, Executive Vice President, and Dr. Ernest B. Howard, Assistant Executive Vice President—visited Vice President Richard M. Nixon at his Washington Office. They told the Vice President that by the end of this year an estimated 60 percent of the nation's aged persons who want and need voluntary health insurance will have it.

Mr. Nixon, according to the officials, was delighted to receive the information and "very much interested" in the program of voluntary health insurance for the aged.



Physicians who are officers of qualified clinics would be entitled to deduct as business expenses money set aside for their retirement under a proposed regulation of the Internal Revenue Service. The decision climaxed a five-year effort of a group of Montana physicians to secure such tax

treatment, and marked an important tax development for physicians who operate clinics. Self-employed physicians continue to be barred from similar tax treatment, though there is legislation before the Senate Finance Committee that would afford them tax deferrals on funds set aside for retirement.

MEDICAL NEWS IN TENNESSEE

East Tennessee Physicians Learn More About Heart Ills

East Tennessee physicians met at the Andrew Johnson Hotel on January 21st to learn of the latest developments in treating heart disease. The annual symposium was sponsored by the East Tennessee Heart Association. The feature lecturer was Dr. Thomas W. Mattingly, director of medical education and a member of the senior medical staff in internal medicine at the Washington Hospital Center. Other guest speakers were: Dr. Victor A. McKussick, associate professor of medicine, Johns Hopkins University School of Medicine, and physician in charge of Joseph Earle Moore Clinic; Dr. Andrew G. Morrow, chief, Clinic of Surgery, National Heart Institute, Bethesda, Maryland; and Dr. Alexander S. Nadas, physician and cardiologist, Children's Medical Center, Boston, Mass.

Memphis Obstetrical and Gynecological Society

Dr. Glen H. Williams was recently installed as president for 1960 of the Memphis Obstetrical and Gynecological Society. Dr. Williams succeeds Dr. Harold Feinstein. Other new officers were: Dr. William T. Black, vice president; Dr. Charles R. Riggs, secretary; and Dr. John Palmer Moss, Treasurer.

Inhalation Therapy Institute Conducted at Chattanooga

The second annual Inhalation Therapy Institute was conducted at Erlanger Hospital in Chattanooga on January 18-20. Chattanooga physicians participating in the program were: Dr. Harold G. Sibold, anesthesi-

ologist; Dr. L. Spires Whitaker, thoracic surgery; Dr. Fay B. Murphey, internist; Dr. Homer D. Venters, pediatrician; and Dr. Edward E. Reisman, Jr., general and thoracic surgery.

Dr. E. Harris Pierce spoke on the subject "Pulmonary Emphysema." Dr. J. T. Bradsher, Jr. of Knoxville, thoracic surgeon, discussed "The Principles and Use of the Artificial Heart and Lung."

University of Tennessee College of Medicine

Recognizing the importance of well-trained technicians to the health profession, the College of Medicine established a Section of Clinical Laboratory Sciences. The section, within the Division of Pathology and Microbiology, includes five separate courses of study, including medical technology, cytotechnology, microbiology, histologic technic, and physicians' office assistants.

★

Dr. Frederic C. Chang, professor of chemistry and research associate in pathology and microbiology has been awarded a \$28,951.00 research grant by the U.S. Public Health Service. Dr. Chang plans to synthesize a group of "altered" steroid hormones, hoping to find among them substances with anticancer or superior hormonal activity.

★

Dr. Robert A. Utterback, head of the Section on Neurology, has received a \$29,275.00 grant, made by the National Institute of Neurological Diseases and Blindness of the U.S. Public Health Service. The grant will be used to encourage young physicians to study neurology.

★

Dr. James W. Pate, Assistant professor, will study plastics and fabrics used in heart surgery under a \$41,227 grant from the U.S. Public Health Service.

★

Continued medical advances . . . increased research . . . new facilities and plans for further expansion . . . these are high points of the year 1959 in the Memphis medical center.

Highly trained specialists and modern medical tools available in the university-affiliated center provided health benefits shared by the entire Mid-South.

Of 36 buildings in the multimillion-dollar center, 22 are occupied by the University of Tennessee Medical Units. The College of Medicine is the largest in the United States, in terms of number of physicians graduated.

★

Funds have been allocated for construction of two new buildings and plans are now being drawn by the architect.

The funds are for an \$800,000 Dental-Pharmacy Research Building and a \$1,600,000 radiology laboratory. The latter facility will be a joint project of UT and City of Memphis Hospitals.

Nearly \$900,000, an increase of more than \$200,000 over 1958, was awarded to the university's medical scientists to pursue research programs on a wide scale.

Two of the most significant grants in 1959 were made to the School of Biological Sciences, UT's graduate school, to expand its training program. There is a nationwide shortage of research-trained manpower.

★

The College of Medicine is the Nation's second largest medical school in number of graduates—fourth largest in the number of students enrolled. In 1958-59, it graduated 173 new doctors.

Hospital Expansion

John Gaston Hospital is in process of remodeling space for an *intensive care unit* for critically ill patients. The unit is expected to be in operation early this year.

St. Joseph Hospital started moving patients in gradual occupation of its new \$3,000,000 wing. The six-story building will have 210 beds, giving the hospital a total of 440 beds.

Baptist Hospital is now working on remodeling plans to convert the former Veterans Administration Hospital No. 88 on E. H. Crump Boulevard into a chronic disease hospital for the aged. The VA facility acquired by Baptist will be turned into a 154 bed unit for "long-term patients," marking the first chronic disease hospital of its kind

in Shelby County. Another significant advance at Baptist Hospital was establishment of a \$250,000 cardiopulmonary laboratory for clinical research and treatment of patients with heart and lung diseases.

Methodist Hospital's new \$5,500,000 East Wing was completely occupied and all nursing stations in both buildings were opened during 1959. The 10 story wing raised the total to 500 beds. The hospital also opened a 22-bed "selective care" unit in the West Wing for patients not requiring constant nursing care, thereby reducing costs for such patients. The Hospital is now remodeling an area in the main building and adjoining the East Wing for a \$45,000 recovery room.

Le Bonheur Children's Hospital made news when the first successful "open heart" operations were performed there with use of a new heart-lung machine. Patients with life-threatening defects inside the heart were given a new lease on life. (Later in the year, successful "open heart" surgery also was performed at John Gaston Hospital.)

The Memphis and Shelby County Health Department moved into ultra-modern headquarters. The new building cost in excess of \$1,000,000.

Further plans for medical center expansion include a state hospital for the mentally ill. Land has been cleared and deeded to the State.

Chattanooga Area Heart Association

In cooperation with the Chattanooga-Hamilton County Medical Society the Heart Association presented its Ninth Annual Heart Symposium on January 28. The morning session consisted of Grand Rounds at the Baroness Erlanger Hospital with the presentation of cases and clinical problems to Doctors Edgar Hull, George C. Morris, Jr., and Leon A. Phillips. The afternoon program consisted of the following papers: "Coronary Artery Visualization" and "Cardiovascular Manifestations in the Routine Chest Plate" by Dr. Leon A. Phillips; and "Surgical Therapy in Arteriosclerosis" by Dr. George A. Morris, Jr. A period was devoted to Questions and Answers.

Dr. Carl Hartung presided at the dinner at the Chattanooga Golf and Country Club.

A Welcome was given by Mr. James B. Cole, President of the Chattanooga Area Heart Association. Dr. Edgar Hull spoke on the "Prevention of Cardiac Emergencies."

Dr. Edgar Hull of L.S.U. Medical Center and Charity Hospital, New Orleans, is director of the Heart Station, Mercy Hospital and Hotel Dieu. Dr. George C. Morris, Jr. is assistant Professor in Surgery and Director of Surgical Research Laboratory at Baylor University, Houston, Texas. Dr. Leon Azel Phillips is Instructor in Radiology at the Washington University, St. Louis, Mo.

Middle Tennessee Heart Association Offers New Booklets

Heart Attack is a recently revised publication of the American Heart Association which has been made available through the Middle Tennessee Heart Association at no charge. The leaflet tells what a heart attack is and gives general rules for the patient who has had a heart attack or who has angina pectoris. It was designed primarily for the general public. The second, *Strokes, A Guide for the Family*, was prepared primarily for those who live with or care for the stroke patient, and it gives specific pointers as to how the family can help him in his recovery. The importance of early rehabilitation is emphasized and also the necessity for a close family-physician relationship in helping him to regain many of his abilities.

PERSONAL NEWS

Elected to the medical staff of the Maury County hospital in Columbia were: **Dr. Carl C. Gardner, Jr.**, president; **Dr. Harry C. Helm**, vice-president; and **Dr. Ambrose M. Langa**, secretary-treasurer.

Dr. Thomas F. Warder, Nashville, announces the removal of his office to 104-20th Avenue, North, Nashville.

Dr. James B. Ely, Knoxville, recently addressed the East Knoxville Kiwanis Club. His subject was "Cancer."

Dr. John T. Carter, Jr. has been elected president of the Germantown Civic Club.

Dr. Dan Gary, Union City, was the guest speaker at a recent meeting of the local Rotary Club. His subject was "Radiation Hazards."

Dr. J. Hughes Chandler, Jackson, has been elected chief of the medical staff at Jackson-Madison County General Hospital. **Dr. Harold T. Melver** was named assistant chief. Other chiefs of services included: **Dr. Thomas K. Ballard**, general practice; **Dr. Fred M. Friedman**, medicine; **Dr. Chester L. Holmes**, surgery; **Dr. S. Allen Truex**, obstetrics and gynecology; **Dr. John R. Thompson, Jr.**, radiology; **Dr. Chester K. Jones**, pathology; and **Dr. Henry N. Moore**, anesthesiology.

Dr. Dewey W. Hood announces the opening of his office for the practice of medicine at Decherd.

Dr. John T. Mason, McMinnville, has been named president of the Warren County Medical Society. **Dr. J. E. Phillips** was named vice president, and **Dr. Elizabeth M. Lodge**, secretary-treasurer.

Dr. Dan A. Rather announces the opening of his office for the practice of medicine at Elizabethton.

Dr. Anne U. Bolner announces the opening of her office for the practice of medicine in Fayetteville.

Dr. Jesse E. Adams, Nashville, announces the opening of his office in the Medical Arts Building where he will specialize in thoracic and cardiovascular surgery.

Recently installed as officers for 1960 of the Chattanooga-Hamilton County Medical Society were: **Dr. George K. Henshall**, president; **Dr. Charles Hawkins**, secretary-treasurer; and **Dr. Augustus McCravey**, president-elect.

Dr. R. B. Spence announces his association with the Paris Clinic. He will specialize in internal medicine.

The new director of the Greene County Health Department is **Dr. Charles D. Huffman** of Limestone.

Dr. Stanfield Rogers, Knoxville, recently addressed the Alcoa Kiwanis Club.

Dr. James L. Johnson announces his association with **Drs. Gordon, Poarch, Harrison and Limbaugh** at Gordon Clinic in Lewisburg.

Dr. Richard A. Miller, Memphis, has been elected chief of the medical staff of the Memphis Eye, Ear, Nose and Throat Hospital. He succeeds **Dr. J. Wesley McKinney**. **Dr. T. P. Manigan** was elected vice chief and **Dr. Eugene Vacarro** was re-elected secretary.

Dr. F. Tremaine Billings and **Dr. George Mann**, Nashville physicians, recently addressed a combined meeting of the Dickson Civic Clubs at Montgomery Bell Inn.

Dr. N. E. Hyder of Erwin has been elected president of the John Sevier Chapter of the Tennessee Academy of General Practice.

Dr. John J. Lentz, Nashville, Director of the Nashville and Davidson County Health Department, was recently presented a citation by the

Health and Hospital Committee of the Nashville Chamber of Commerce for an outstanding record of achievement. This was on the occasion of a luncheon in his honor in January.

Dr. Charles F. Webb, Jackson, was recently honored by staff members of the Webb-Williamson Hospital upon the 30th anniversary of the founding of the hospital.

Dr. H. J. Brown, Kingsport, has been elected president of the Holston Valley Community Hospital medical staff for 1960. **Dr. Frank B. O'Connell** was named president-elect and **Dr. Lyle Smith**, secretary-treasurer. **Dr. R. C. Jones** was named Chairman for the department of surgery. **Dr. D. W. Bales** was named chairman of the department of medicine; **Dr. H. W. Rule**, chairman of the department of general practice; **Dr. F. S. Flanary**, chairman of department of pediatrics; **Dr. J. B. Warren**, chairman of the department of obstetrics and gynecology; **Dr. W. E. Scribner**, chairman of the department of radiology; and **Dr. William Harrison**, chairman of department of pathology.

Dr. Wm. G. Stephenson, Chattanooga, has been named to the advisory board of the Monticello Insurance Company.

Dr. I. H. Jones has been elected president of the Henry County Medical Society. **Dr. John Neumann**, Paris, was named vice president and **Dr. W. G. Rhea**, secretary-treasurer.

Dr. S. Benjamin Fowler, Nashville, has been elected vice-president of the Baptist Hospital medical staff.

Chattanooga physicians appearing on a local television program were **Dr. M. R. Vance** and **Dr. George K. Henshall, Jr.** Dr. Vance discussed "Polio" and Dr. Henshall discussed "New Hope in Cancer-Cell Examination." The program is entitled "Your Doctor Speaking" and is sponsored by the Chattanooga-Hamilton County Health Council.

Drs. Robert E. Sullivan, Philip L. Lyle, L. Rowe Driver, and **Fred A. Rowe** announce the removal of their office to the Mid-State Medical Center, Nashville, for the practice of ophthalmology.

Dr. C. C. McClure, Sr., Nashville, announces the removal of his office to 1903 Hayes St., for practice limited to X-ray consultation and diagnostic roentgenology.

Drs. Ingram, Hamilton and Linn, Nashville, announce the reopening of their offices at 2119 Hayes St., with the addition of Cobalt-60 Teletherapy.

Drs. Edward H. Martin and Elmore Hill, Nashville, announce the removal of their offices to 1900 Hayes St. for the practice of oral surgery.

Dr. Hamilton V. Gayden, Nashville, announces the removal of his office to the Mid-State Medical Center for the practice of obstetrics and gynecology.

HISTORICAL NOTES

The Organization and Administration of the Medical Department of the Confederate Army of Tennessee (Continued)

Chapter II

Beginnings of a Medical Service in the Army of Tennessee

The occurrence of a Civil War first aroused the medical profession to the necessity for a satisfactory hospital organization, but the succession of important events in this war was so rapid that practice had met emergencies without premeditation. In the end success was achieved; but every step toward a better organization showed definitely how much suffering could have been prevented by earlier recognition of its advantages. (Charles Smart, *Handbook for the Hospital Corps of the U.S. Army and State Military Forces.*)

I. The Problem in Tennessee

The Army of Tennessee's medical department possessed one basic difference from that of any other army in either the North or South. The Medical Director of Hospitals, Dr. Samuel H. Stout, and the Medical Director in the Field, Dr. A. J. Foard, perceived the fluid, retrograde nature of the conflict and attempted to develop their service accordingly. They sought to create a unit that would possess the capabilities of rendering both field and hospital service. Thus for all practical purposes, instead of developing separate field and hospital systems, the whole corps assumed the functions of one field medical organization which was prepared at all times to move en masse with the army.

Dr. Stout first formulated the plans for this unique organization. Having come on active duty as regimental surgeon for the Third Tennessee regiment, he was re-assigned to duty as Surgeon in Nashville. Prior to the war Stout had practiced privately in this area. Approaching his fortieth birthday, he had originally planned to enter the United States Army as a surgeon, but refused a commission upon graduation.¹ Following the fall of Forts Henry and Donelson in February, 1862, the disorder and confusion resulting from panic was present in all branches of the army and civilian authority. While watching

this chaos, Stout probably conceived the plan which later was to guide his creation of a mobile medical service. The hospitals were prematurely cleared; wounded and sick were shipped out hastily with no provision made for their receipt; much material was left behind; and many instances were evident of a needless waste of manpower which, properly used, would have alleviated the situation. But most of all, a complete lack of organization and coordination was glaringly displayed.²

Nashville fell in February, 1862, and with it went splendid hospital facilities. Stout, who had impressed Johnston with his work at Nashville, was sent ahead to Chattanooga to organize the hospitals there.

He managed this assignment so well that when Braxton Bragg replaced Beauregard in command of the army, Stout was made Surgeon General in charge of the hospitals of the Army of Tennessee. A. J. Foard, the medical director, had a large share in obtaining this assignment for Stout. From the beginning relations among all three (Foard, Stout, and Bragg) were marked by uncommon cordiality. Foard maintained his overall supervision, but in reality he handled the field work and Stout the general hospital system. The situation was such that it was difficult at times to draw the line of responsibility between field and hospital service, but in all instances cooperation was the order of the day.³

2. Organization of the Field Service

The Medical Director of the Army of Tennessee was ideally suited for the position. A. J. Foard was a native of Georgia and obtained his education at Jefferson Medical College. Foard had been an assistant surgeon in the United States Army, but with the secession of Georgia he had offered his services to that state. He joined Bragg's staff in Pensacola in 1861, and first came to notice as a result of his work in the attempt to organize a suitable field medical service following Shiloh. After the death of Johnston, he became Director of Medicine under Beauregard. When Bragg succeeded to the command, Foard assumed the new title of Medical Director of the Army of Tennessee. With the exception of a short period leading up to and through

the Chickamauga campaign, he retained that post even though the command of the army twice changed hands. With the aid of an able assistant, E. A. Flewellan, who briefly held the post of Medical Director during his absence, Foard proved worthy of the trust placed in him by four army commanders. He survived the war by only three years, passing away in early 1868, a tired and worn individual.⁴

Foard's first problem as Medical Director was to reorganize the medical service on the regimental level. Upon the commencement of hostilities practically every regiment reported with its own surgeon. In addition, some regiments had assistant surgeons, and others even company doctors. At the same time, a few regiments reported with no medical personnel at all. Therefore, instances occurred in battle when some regiments suffered heavy losses and had no doctors to handle the situation, whereas others with fewer casualties had an abundance of medical help. The same situation was vividly illustrated following the battle of Shiloh in early April, 1862. The casualties were extremely heavy and probably in no other engagement were the wounded subjected to such suffering.

Perhaps the main reason for lack of attention to the wounded at Shiloh was this faulty organization on the regimental level. Even when the evacuation reached Corinth, about twenty miles distant, some doctors were forced to remain idle while others were being overworked. The regimental practice of treating wounded also had another fault. The few experienced surgeons were restricted to their own units while the other regiments depended upon doctors who had seldom performed surgery before the war.⁵ Under the new plan the most qualified surgeons were placed in a central field hospital of corps or division level. Each regiment was now allowed one surgeon and one assistant surgeon whose duties consisted of following closely in the rear of their organizations and rendering first aid at a station set up for that purpose.

The problem of obtaining trained enlisted corpsmen to assist the surgeon in the field was never completely solved. There were few, if any, regularly assigned medical aidemen. The training program for those who

were chosen was negligible. Rather, the army considered medical experience gained prior to the war as sufficient to merit assignment as a surgical aide.

On the eve of an expected battle or in the midst of a camp epidemic, the surgeon called on the company commander to provide the majority of litter-bearers and aidemen. The company commanders had a tendency to send their worst elements, preserving the good soldiers for their own use.⁶ The obvious result was that the medical corps gained the reputation for being infested with malingerers, booty seekers, and general trouble makers incapable of rendering medical aid.

In the regimental organization as it finally developed, each company had one hospital steward, one male nurse, and one cook. At regimental level, in addition to the surgeon and assistant surgeon, one male nurse was appointed for every ten patients. Also, one steward supervised cooking, supplies, and hospital stores, while another, preferably a physician from the ranks, was dispenser of drugs.⁷

In times of crisis the field hospitals might be supplemented through the dispatch of surgeons and aides from general hospitals. One contemporary surgeon described the arrangements as follows:

On the moment of an expected battle a telegram would be sent by the medical director of hospitals to the hospital post surgeons within easy and rapid communication with the expected battlefield, to forward to the more distant hospital posts all the sick and wounded who could bear transportation and to immediately telegraph for available supplies for the impending emergency. The able Medical Director in the Field was always in instant communication with the Medical Director of Hospitals. Thus there obtained no loss of time or confusion in knowing where to send the sick and wounded on such instant and momentous occasions, and hospital posts were thus always in readiness to receive and care for our wounded and desperately sick comrades whenever a battle was joined between contending armies.

Surgeons who were sent to aid the ones in the field returned to their home stations after they completed their assignment, caring for many of the wounded enroute. Once the patient was sent from the field he became the responsibility of the Director of Hospitals.⁸

Patients who failed to respond to regi-

mental treatment were sent to a field collection point where further disposal was decided. Normally they would be sent back to a general hospital.⁹ E. A. Flewellan, the inspector, played a large part in coordinating these activities and acting as liaison between Stout and Foard.¹⁰

3. Organization of the Hospital System

Stout's early interest in military medicine made him see the necessity of good administration. Also, being a civilian, he well understood the average doctor's tendency to dismiss all paper work such as sick reports and requisitions as red tape to be ignored. He also realized that some of the reports desired by Richmond were hangovers from the long neglected United States Army that was badly in need of reformation. But in order for the organization to properly function, the Director knew that his doctors must be educated in the proper channels to be used in ordering supplies. They must also know the necessity of maintaining accurate records on disease and death rates. He chose this need as his first task. Stout largely accomplished compliance in two ways. First, he demanded strict adherence to the regulations for submitting daily, weekly, and monthly reports; and secondly, he set up the Academy Hospital. In addition to the regular treatment of patients, schools were organized at this hospital for the instruction of surgeons in medical treatment, proper form for completion of various reports, and guidance given for their relations with the quartermasters, commissaries, and medical purveyors.

Total success was never achieved in the field of supply orientation. A faulty organizational scheme resulted from the failure to establish a separate medical supply system. But the strides made in the Army of Tennessee were really remarkable. Along with his demand for proper requisitioning, Stout also demanded the purveyors fill these prescriptions and requisitions promptly.¹¹ Stout's failure to get a unified supply system did not, however, detract from the really outstanding factor operating in his favor, namely, the fine lines of communication back to the main depot at Atlanta. In one instance medical supplies for sixteen

days were obtained in the space of twelve hours.¹²

One of Stout's major problems was the lack of sufficient hospital structures. Though nothing he built was so elaborate or well-constructed as Chimborazo General in Richmond, the pavilion style of this hospital set the pattern for hospital construction in both the North and the area controlled by the Confederates around Richmond.¹³ Stout described the pavilion-type buildings which he erected as follows:

The pavilion wards erected under my direction, were of such width that only two rows of bunks were arranged or accommodated in them. The bunks were placed crosswise of the room, the head of each being from one and a half to two feet from the side wall. Thus, an aisle or vacant space of from eight to ten feet in width was left in the middle of the ward throughout its whole length. Sometimes the wards were built one above another. Near the floor, and just under the ceiling overhead, were longitudinal openings with sliding shutters one foot in width that could be closed or opened at the will of the surgeon in charge. Overhead, in the ceiling, were also openings with sliding shutters and latticed structures on the comb and in the gables, which were opened or closed as occasion required.¹⁴

In most instances, however, the buildings utilized by Stout were make-shift structures taken over for hospital purposes. The result of this policy of requisitioning schools, hotels, and warehouses for use as hospitals was the fostering of resentment among local populations, who keenly disliked the "Yellow Flag" being placed over their public buildings. In the situation which he faced, Stout was left with little choice other than seizure of these buildings.

In choosing the surgeons and their assistants to handle the administrative and professional functions in his organization, Stout relied on strict examining boards to weed out the incompetents, of whom there were many at the beginning of the war.¹⁵ That a thorough job was done by the examining boards is indicated by the large number of individuals dropped from the rolls during the first year of war.

Stout endured many problems in maintaining efficient control of his organization. Various states attempted to create separate hospitals responsible for the treatment of only their soldiers, and General W. J. Hardee wanted a hospital established that

would care for only members of his corps. Stout foresaw that the obvious results of such a policy would be overcrowding in some institutions and an extremely low census in others. At Richmond the states did manage to drag "states rights" into the field of medicine with many ill effects. Stout was continuously opposed to any such development in his department.¹⁶

Stout made a further improvement to avoid confusion on command responsibility between field and medical officers. He made each hospital a separate post under the surgeon in charge. In turn, all the hospitals in any one city were under the command of the senior surgeon. The senior surgeon was responsible directly to Stout.¹⁷

The Confederate Army of Tennessee had to pass through a severe period of transition before its medical department was to emerge capable of proficient performance of duty. It suffered the same severe handicap of mass professional ignorance that plagued the armies of both the North and the South. At the time there was little that could be done to alleviate this situation. However, in the development of a coordinated service in both field and hospital medicine, Foard and Stout were successful to a large extent. Their basic idea was one that offered possibilities of complete success if they had been working with modern and better equipment and their medical knowledge more advanced.

(To be continued)

BOOK REVIEW

MODERN CHEMOTHERAPY OF TUBERCULOSIS: by Roger S. Mitchell, M.D., and J. Carroll Bell, M.D., University of Colorado School of Medicine. 101 pages. New York, Medical Encyclopedia, Inc., 1958.

The authors have produced the most authoritative treatise on the treatment of tuberculosis available today in one source. It is short, easily readable, well-diagrammed and yet thoroughly covers the pharmacology, what is known of modes of action, and results to be expected when differing regimens are contrasted against varying stages of the disease. Conservatism is expressed throughout, and controversial areas, while recognized as a challenge to investigators, are not left up in the air but followed with a solid recommendation based on the facts of today.

Chemotherapy of tuberculosis is one of the

few areas where there have been uniformly conducted trials in large numbers of patients over periods of years. Dr. Mitchell's perspective is further heightened by his experience in assessing the outlook of untreated disease in a series of papers in the past, and in writing previous short treatment reviews. One of the first to investigate the "rapid" inactivation of isoniazid, he deftly handles this important point in the text. The bibliography is superb, no less than 510 references being cited for the interest of those who wish to go further; these include probably every important article up to 1958, when the book was written.

Some points of view may be questioned, such as the use of pneumoperitoneum, the lack of significance of the *rate* of x-ray progress, and the disparagement of an "INH-alone" regimen in certain types of disease. These, and other areas, are nonetheless the product of vast critical review and lack of evidence to the contrary. Recommendations contained herein are unequivocally sound, and this monograph, No. 11 of the Antibiotic series, should be available to all who treat tuberculosis in other than an investigational setting.

TEXAS SURGEON: by Donald T. Atkinson, M.D. 180 pages. New York: Ives Washburn, Inc., 1958.

This is a highly entertaining and fast moving autobiography of a famous Texas eye surgeon with a wanderlust and a passion for adventure. The reader is carried through a half a century as the author traces his development from a rustic childhood through the early years of medical yearning, the training period in the medical school, the years of general practice and finally, after specialty training in clinics abroad, the culmination of his career as an ophthalmologist. His style is vigorous, imaginative and wonderfully descriptive. The book is directed primarily toward the lay reader.

Synopsis of Treatment of Anorectal Diseases. By Stuart T. Ross, M.D., 235 pages. St. Louis: The C. V. Mosby Company, 1959. Price \$6.50.

This is another of the well known C. V. Mosby "Synopsis" series, this time concerning anorectal diseases. The book is a pocket sized, 235 page handbook which deals with the fundamental facts all physicians and surgeons must possess in order to handle proctologic ailments effectively.

In his foreword Dr. Harry E. Bacon, an internationally known proctologist, summarizes, "for three decades not a single treatise in manual form has appeared on this subject, and this particular synopsis is a most welcome addition to the library of all interested in this field of scientific endeavor.

As in all the "Synopsis" books, an effort is made toward concise presentation with a minimum of superfluity and academic meanderings. This might be criticized by those with some knowledge of the subject, but it is ideal for those who need a quick reference work.

ILLUSTRATED PREOPERATIVE AND POST-OPERATIVE CARE: by Philip Thorek, M. D., Professor of Surgery, Cook County Graduate School of Medicine, Chicago Ill.: J. B. Lippincott Company, Publisher, 1958.

This is a very brief book consisting of transcriptions of the author's notes from lectures to medical students. It is simplified a great deal and much of the information is so basic that it would be of use primarily to people just beginning their experience in clinical medicine, e.g., "a diastolic heart murmur is usually more dangerous than a systolic. It behooves every physician, specialist or otherwise, to check the blood pressure and auscultate the heart of every surgical patient. If these indicate possible trouble, then consultation should be sought." There is no bibliography.

Physiology of Cardiac Surgery. By Frank Gollan, M.D., Assistant Director of Professional Services for Research, Veterans Administration Hospital, Nashville, Tenn. 96 pages. Springfield, Ill.: Charles C. Thomas, Publisher, 1959. Price \$4.50.

This is a witty and thought provoking essay by a researcher with enough years of experience to enable him to view the field with a detached and philosophical perspective. This was the substance of the Beaumont Lecture delivered before the Wayne County Medical Society in 1959. Like Dr. Beaumont, Dr. Gollan is able to be fundamental with the field as a whole while exploring the crevices of his own special interests. The text is liberally spiced with quotations and references from literary and scientific greats of the past, bespeaking the broad cultural background of the author. The style is entertaining and facile with a subject which can be and often is muddled with inconsistencies and swamped with trivia.

The essay is divided into three sections dealing with, (1) induced hypothermia, (2) extracorporeal circulation, and (3) extracorporeal cooling.

AUTOGENOUS VEIN GRAFTS: by W. Andrew Dale, M.D., Assistant Professor of Clinical Surgery, Vanderbilt University School of Medicine, Nashville, Tenn. 117 pages. Springfield, Ill.: Charles C. Thomas, Publisher, 1959. Price \$6.00.

This is a well documented and meticulous monograph dealing with all aspects of the use of autogenous vein graphs in peripheral vascular disease. Dr. Dale carefully analyzes his own wide experience with that of others in the comparative advantages and disadvantages of all types of vascular grafts. His contention that the autogenous vein graft is the most physiological and the most durable substitute for the peripheral arteries seems well substantiated.

Chapters are included on arteriography, operative technique, preoperative and postoperative care, complications, and the relation of grafting procedures to other types of peripheral vascular surgery. The book must be recommended as a very worthwhile contribution to a rapidly grow-

ing field. It should be read by every thoughtful surgeon who seeks to improve his results in this area.

ANNOUNCEMENTS

AAGP Assembly in Philadelphia March 21-24

The American Academy of General Practice has scheduled its 12th annual scientific assembly for March 21-24 in Philadelphia's Convention Hall. The assembly this year is combined with the Philadelphia Postgraduate Institute. The advance program lists thirty-one prominent medical educators who will discuss a variety of subjects ranging from arthritis and anemia to surgery, geriatrics and mental health.

Some 100 scientific and 300 technical exhibits are scheduled. Physical examinations, during which more than 600 doctors had check-ups made at the last meeting, will be a feature part of this year's program. Approximately four thousand members of the AAGP are expected to attend.

The Academy's policy making congress of delegates will meet on March 19th in the Bellevue-Stratford Hotel.

The Gill Memorial Eye, Ear and Throat Hospital

The Thirty-third Annual Spring Congress in Ophthalmology and Otolaryngology will be held in Roanoke, Virginia. Nationally known guest speakers will appear on the program. For further information write: Superintendent, P.O. Box 1789, Roanoke.

Chicago Committee on Trauma of the American College of Surgeons

The Fourth Post-Graduate Course on Fractures and Other Trauma, sponsored by the Chicago Committee on Trauma of the American College of Surgeons, will be held April 27 through April 30, at the John B. Murphy Memorial Auditorium, Chicago. Inquiries should be addressed to John J. Fahey, M.D., 1791 W. Howard Street, Chicago 26.

The Southeastern Surgical Congress

The Twenty-eighth Annual Assembly will be held on March 21-24 at the Roosevelt Hotel in New Orleans. An outstanding program by nationally known surgeons is offered for this meeting. For further information address B. T. Beasley, M.D., Secretary-Director General, 340 Boulevard, N.E., Atlanta 12, Ga.

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PLACEMENT SERVICE

The placement service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee.

Locations Wanted

A 29 year old married physician. Baptist. Graduate Medical College of Georgia. Desires to specialize in internal medicine in clinic or association with other physicians. Available July, 1960. LW-340

A 28 year old married physician. Protestant. Graduate Wayne State University, Detroit. Desires location in Tennessee community of 25,000 to 50,000 for general practice. Prefers clinical work. Available July, 1960. LW-344

A 28 year old married physician. Baptist. Graduate Emory University. Desires assistant, associate or clinical practice in internal medicine in east or middle Tennessee community of 20,000 or more. Available July, 1960. LW-347

A 29 year old married physician. Methodist. Graduate Medical College of Virginia. Desires private practice in pathology in east or middle Tennessee community. Will consider assistant or associate practice. Available July, 1960. LW-350

A 30 year old married physician. Presbyterian. Graduate Medical College of Alabama. Desires assistant, associate or clinical practice in Ob-Gyn in Tennessee community of 25,000 or more. Available July, 1960. LW-351

A 36 year old married physician. Protestant. Graduate Indiana University. Desirous of salaried position with regular working hours. Prefers general practice or administrative work. Available July, 1960. LW-356

A 34 year old married physician. Protestant. Graduate University of Chicago. Desires private practice in pathology in metropolitan area in middle or west Tennessee. Available July, 1960. LW-358

A 38 year old married physician. Presbyterian. Graduate University of Texas. Desires to practice Radiology in small Tennessee community. Available June, 1960. LW-359

A 32 year old married physician. Methodist. Graduate Vanderbilt University. Completing 3rd year of residency training in Ob-Gyn. Desires assistant or associate practice in Ob-Gyn in Tennessee. Available July, 1960. LW-360

A 36 year old married physician. Baptist. Graduate University of Tennessee. Desires location in small east or middle Tennessee community

with hospital privileges for general practice. Will consider clinical or industrial practice. Available immediately. LW-361

Physicians Wanted

Middle Tennessee town of 1,000 trade area 8,000, has a fund of \$25,000 to build a clinic for general practitioner. Located about 72 miles from Nashville and about 32 miles from three hospitals. Excellent high school and elementary school. Agriculture and small industry. Excellent location. PW-123

Clinic in east Tennessee community of 4,000 has opening for general practitioner interested in obstetrics. Hospital located in community. PW-128

Small northwest Tennessee community of 1200, trade area 3,000, desires general practitioner. Nearest hospital 16 miles. Office space available. Near large recreational area. PW-129

Southern Tennessee community of 1000 desires general practitioner to replace physician who has left community to join hospital group in another community. Nearest hospital 15 miles. Office space available. Good location. PW-131

Physician in northeast Tennessee community of 5,000 desires GP to associate with him in his practice in northeast Tennessee and southern Kentucky. Hospital located in community. Office space and some equipment available. PW-132

Small central Tennessee community of 1,000 desires general practitioner. Community has been without medical service for some time. Fully equipped six room clinic available. Two hospitals totaling 75-beds 14 miles away. Hospital privileges available nearby. PW-133

Middle Tennessee community of 8,000 in need of a physician in the field of internal medicine. Must have 2 years internship and 1 year residency training. Office space located near newly built hospital. PW-136

Pediatrician with 2 years internship and 1 year residency training needed in middle Tennessee community with new hospital and office building near hospital. Office furnished except for doctor's private office and examining rooms. PW-137

Physician in middle Tennessee community of 5,000 desires an associate GP, surgeon or pediatrician. Hospital located in community. Office space available in hospital. PW-138

A small rural middle Tennessee community of 800 in need of general practitioner to replace physician who is leaving community in April to enter U. S. Air Force. Office space and hospital privileges available nearby. Near good hunting and fishing area. Good location. PW-139

Journal of the Tennessee State Medical Association

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The advances in the surgical management of vascular disease have been remarkable and are well known. Nevertheless the family physician must be on the look-out constantly for those conditions which may be corrected. Certain of them represent emergencies requiring immediate attack.

Symposium: Peripheral Vascular Disease*

INTRODUCTORY REMARKS

Moderator: HARWELL WILSON, M.D.,† Memphis, Tenn.

Ladies and Gentlemen, it is a real pleasure for me to serve as moderator of this symposium for two reasons. First, I have been especially interested in the diagnosis and treatment of peripheral vascular diseases for several years and, second, it is a privilege to have three surgeons from various sections of the state who are particularly competent to discuss the subject for us. Dr. Kirtley of Nashville is one whose ability and judgment I have admired for many years. Dr. Landry of Chattanooga, who will later discuss varicose vein management, received his early surgical training in New Orleans, a medical center from which many contributions have come which have advanced the knowledge of vascular surgery. Dr. Bruce McCampbell, who will discuss acute arterial injuries, has had extensive experience in the newer phases of peripheral vascular surgery and I am sure will give us a practical as well as stimulating discussion. We have reserved approximately fifteen minutes at the end of the symposium for a "Question and Answer Period" and, since some of the problems discussed may have controversial aspects, I hope to bring out varied points of view during this portion of the discussion.

Before asking Dr. Kirtley to discuss the treatment of aorto-iliac occlusive disease, I should like to briefly outline some of the principles we believe are important in the diagnosis and management of femoral artery

occlusive disease and I would like to mention, also, for the sake of completeness the place of embolectomy in treating the patient who suffers from acute occlusive disease resulting from an embolus.

Embolectomy. The great majority of peripheral arterial emboli occur in patients who are suffering from some type of heart disease. The embolic occlusion may occur in a patient suffering from rheumatic heart disease and it, also, may result from the dislodgment of a mural thrombus in the patient who has had cardiac infarction. It is especially important for the physician to be constantly aware of the possibility of peripheral emboli while caring for the cardiac patient. The symptoms which result from the sudden occlusion of a major peripheral artery are usually rather spectacular. The patient complains of sudden and usually rather severe pain in the extremity. This is followed in a short period of time by a pronounced palor of the arm or leg, with a noticeable decrease in the temperature of the extremity which follows the diminution in blood flow. Immediate recognition of such a catastrophe offers the patient an opportunity to have the extremity saved, whereas, if this complication is not appreciated and the patient is simply given a hypodermic injection to provide relief from pain, the extremity may not be saved.

Emboli which block the popliteal or the femoral artery may frequently be successfully removed under a local anesthetic using procaine for infiltration. I would like to show two slides at this time. The first slide

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shows a photograph of a popliteal embolus removed from an elderly patient. This patient was under the care of Dr. E. G. Campbell, a well-known Memphis internist. Dr. Campbell called me during the dinner hour stating that the patient who was known to have had rheumatic heart disease had just experienced a severe pain in the lower leg and foot and that the foot was cold, pale, and pulseless. His diagnosis was popliteal embolus. Dr. Campbell's immediate diagnosis enabled us to remove this popliteal embolus under local anesthesia shortly after the patient arrived at the hospital.

The second slide shows the type of arterial repair which was used after the embolus was removed. More spectacular and much more serious as regards the patient's life is the saddle embolus of the aorta, where a large embolus lodges at the bifurcation of the aorta and prevents flow of blood to both lower extremities. The next slide shows a photograph of such an embolus which was successfully removed from a 57 year old man by a transabdominal approach. The diagnosis in this case was made almost immediately by the patient's internist, Dr. W. C. Chaney of Memphis, who suspected the diagnosis from a description given him over the phone when the patient called from his office saying he had experienced sudden severe pain in the lower extremities while sitting at his desk at his place of business.

The next slide shows the repair which was carried out on the aorta following removal of the embolus. This patient is well several years after removal of the aortic embolus and as far as I know has had no further evidence of arterial emboli.

Arteriosclerotic Femoral Occlusive Disease. The patient who suffers from serious disease which obstructs the lumen of the femoral artery usually complains of intermittent claudication. After walking a variable distance the individual begins to complain of cramps in the calf of the leg. This pain is the result of inadequate oxygen supply to the extremity. Later in the disease the process leads to significant reduction in temperature of the part, to rest pain and, of course, the process may progress to gangrene if the circulation cannot be increased.

Much regarding diagnosis and prognosis

in such cases may be obtained from a careful history and physical examination. Before deciding what type of treatment is best, however, one usually needs to do an arteriogram. The arteriogram usually determines the site and extent of the block in the circulation and something of the extent of collateral circulation. In general, vasodilator drugs have been of relatively little benefit in the treatment of such cases. It is always important to urge such patients to be careful as regards foot hygiene and it is important to warn such patients that any cut or sore on the foot may be slower in healing as a result of the decreased blood supply.

Surgical Procedures for the Relief of Arteriosclerotic Femoral Occlusive Disease. In general we have three surgical procedures which may be recommended to these patients either as individual procedures or in certain instances as a combination of procedures. Endarterectomy may be a very gratifying procedure in certain cases. If the block is not too long it may be possible to open the artery, to clean out the arteriosclerotic plaque which is occluding the vessel and then repair the artery. Femoral artery by-pass graft has been used successfully to increase the circulation in many cases where endarterectomy seemed contraindicated. For a by-pass graft to be suitable there must be adequate peripheral "runoff," that is the vessels distal to the block must be open sufficiently to carry the increased circulation. The next slide shows the arteriogram in a patient who had a long segment of the femoral artery occluded.

The last slide shows an arteriogram in the same patient after a by-pass graft had been inserted. Unfortunately, some of these grafts became occluded after they are inserted. This does not mean, of course, that the procedure is not a worthwhile one in many cases. Lumbar sympathectomy is still indicated in certain individuals and in some cases provides enough increase in collateral circulation to be definitely beneficial.

I have tried to outline some of the important principles of management in the patients suffering from acute embolic arterial occlusion and from arteriosclerotic femoral occlusive disease. Drs. Kirtley, Landry, and McCampbell will tell us about many of the other important phases of peripheral vascular disease.

AORTO-ILIAC OCCLUSIVE DISEASE*

JAMES A. KIRTLEY, M.D.,† Nashville, Tenn.

The early diagnosis of chronic occlusive disease of the terminal aorta and/or iliac arteries may be missed unless the physician elicits a history of back or hip pain associated with exercise. Many of the patient's with Leriche's syndrome have been treated for "backache" and not infrequently are referred to the vascular surgeon by an orthopedic or neurosurgeon.

These atheromatous lesions, either with or without superimposed thrombosis, usually involve the origin or bifurcations of arteries and are usually segmental with more or less normal vessel proximal and distal to the obstruction. It has been shown that in patients with complete obstruction of the aortic bifurcation, the lesion tends to be well localized while in those having incomplete occlusion, there is usually segmental occlusion in the peripheral arteries, especially the femoral and popliteal vessels.

The disease is much more frequent in males than females—in about a 10 to 1 ratio. We have seen a few patients in their third decade with advanced disease, but most of them are between 50 and 70 years of age. Many of them have been heavy users of cigarettes and alcohol.

The earliest complaint is pain on exercise and may involve the hips, thighs and buttocks, and later the legs and feet as the more distal arteries are involved. Hip and back pain, sexual impotence and hypertension are more likely in patients with complete occlusion. There may be atrophy of one buttock or thigh if there is complete

occlusion of the iliac and hypogastric arteries.

Absent or diminished femoral pulses complete the diagnosis of aorto-iliac disease. The oscillometric index is usually decreased. Aortograms are of value in planning the surgical approach and may be safely made using Hypaque through translumbar injection into the aorta or by rapid injection of the dye into each antecubital vein. In some cases of incomplete aortic occlusion, femoral arteriograms have been made in the operating room to determine the patency of the superficial femoral or popliteal. A polyethylene catheter may also be passed up into the aorta from the femoral area and the aorta visualized.

The treatment for complete or incomplete aorta-iliac occlusion is surgical. Three basic procedures have been used, often in combination: thromboendarterectomy, excision with graft replacement and the bypass graft. The indications for the use of each have been established although many vascular surgeons seem to favor one procedure over the other two. At the present time, the procedure that seems most satisfactory in complete aortic occlusion is a combination of proximal thromboendarterectomy and resection with graft replacement extending to the iliac or femoral arteries. In incomplete obstruction, a bypass graft with end-to-side anastomoses between the aorta and femoral artery is usually carried out. Woven Teflon seems to be the material of choice at this time. A limited lumbar sympathectomy may be of added benefit.

The results have been satisfactory and many of these patients have been given added years in which they could continue to work.

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VARICOSE VEINS

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Varicose veins are classified conveniently into the primary and secondary types.

Primary varicose veins are due to an inherent weakness in the walls and valves of the veins, principally in the greater saphenous

system. They occur most frequently in people whose occupations require long periods of quiet standing, such as dentists, policemen, sales clerks and so forth.

These primary varicosities may reach tre-

mendous size but usually do not produce serious symptoms unless complications occur. There is little or no swelling of the ankles, skin changes are minimal or absent, and the patient is not handicapped by the enlarged veins. Trauma may produce bleeding, infection or superficial thrombophlebitis and these complications usually bring the patient to seek treatment.

On the other hand, secondary varicose veins may cause severe disability and may prove a difficult problem to overcome. Varicose veins of the greater or lesser saphenous systems, or both, may occur as the result of many things. These veins may enlarge if pressure is exerted at or near the saphenofemoral junction causing incompetence of the valve. The increased pressure is then transmitted to valves lower in the systems, both superficial and deep, until the return circulation is quite inefficient. Tumor, scar, enlarged nodes, the pregnant uterus, and so forth may lead to varicose veins, as will arteriovenous fistula, congenital or acquired.

However, by far the most common cause of secondary varicose veins is thrombophlebitis of the iliofemoral system. This original condition may have been quite insidious and may have been overlooked after a febrile illness, fracture or other condition enforcing bed rest. Varicose veins and other symptoms may not occur for years afterward. Thrombosis of the femoral vein is later followed by recanalization but the inflammatory process damages the valves. Thus pressure is transmitted down the leg so that the more distal valves are forced to hold a larger unsupported column of blood and they, too, break down. This also applies to the valves in the perforating veins. In addition to the damaged deep veins, the valve at the saphenofemoral junction is subject to increased pressure, or may be damaged, and it, too, breaks down so that the process is repeated in the superficial veins. Therefore, in the upright position some of the venous blood is recirculated in the leg rather than returning directly to the heart. When this occurs, the patient has edema, at first only at the end of the day. As time goes on, this occurs earlier and earlier, and then some degree is always present. This leads to induration of the leg, organization

and fibrosis of this protein rich fluid occurs, hemosiderin deposits produce pigmentation and finally some trivial trauma produces a break in the skin, and ulceration occurs. Secondary infection and eczematous dermatitis add to produce the final picture—a swollen, indurated, pigmented, ulcerated leg with secondary infection and dermatitis—the full-blown, postphlebotic syndrome.

Treatment of the patient with primary varicose veins usually is not urgent. We believe that removal of the veins by stripping or multiple excision is good preventive medicine, since superficial thrombophlebitis and trauma to the enlarged veins are averted. This also produces cosmetic improvement. Actually, compression of the veins by an elastic bandage or stocking may be all that is necessary and, if the patient will be conscientious about this, we do not insist on operative treatment.

On the other hand, varicose veins secondary to iliofemoral thrombophlebitis demand treatment. Dermatitis and infection must first be eradicated and this may require long periods of hospitalization with complete bed rest and elevation of the leg, because edema must not be permitted. Antibiotics and moist dressings are used. After infection is controlled, the incompetent superficial veins are removed by stripping and multiple excision. The greater saphenous system at times may be stripped in one fell swoop from the foot or ankle to the groin, but more often multiple lakes and clusters of veins must be stripped or excised in addition to the main channel. This insures eradication of perforator veins though they cannot be demonstrated as such. Occasionally the sub-fascial ligation of perforators, as advocated and described by Linton, may be done.

Ulcers may be excised and skin grafting done at the same time, or separately.

It is important to test the adequacy of the lesser saphenous system as well as the greater, and ligation and stripping or excision of these veins may be indicated.

We believe that the high rate of recurrence or failure following the classical operations of high and low ligation with or without sclerosing solutions has been due to two factors. 1) Incompetent perforating

veins may be demonstrated by the multiple tourniquet test, but perforators which subsequently may become incompetent cannot be demonstrated. These veins are destroyed by adequate stripping. 2) Even after removal of incompetent superficial veins, the patient may still have edema and the other complications mentioned due to the inefficiency of the deep veins. These patients require compression to the leg, periods of rest and elevation and other conservative measures. Many of these patients are obese,

and loss of weight is very beneficial. If edema can be prevented, other complications will not occur. Prevention of this edema may require a change of employment so the patient may get off his feet and elevate his leg as the occasion demands. Finally, there are some severe intractable cases that have been described by Dr. James Rives of New Orleans,—he has said, "You can't cure them unless you can teach them to walk on their hands."

ACUTE ARTERIAL INJURIES*

BRUCE R. McCAMPBELL, M.D., Knoxville, Tenn.

In time of peace, as well as in time of war, arterial injuries present a perplexing problem. The accepted treatment of injured arteries prior to 1952 was simple ligation. This technic resulted in amputation of between 50 and 60% of the extremities.¹

Early in 1952, Army Surgical Research Teams and surgeons of the United States Navy in hospital ships and in field hospitals began a concentrated effort to repair as many injured vessels as possible. As a result the amputation rate dropped from a high of 62% early in the Korean War to 13% during the latter half. You may ask what were some of the factors responsible for this remarkable record. One of the major factors in this achievement was the static type of warfare which characterized the Korean conflict. Other factors were related to the availability of technical advances such as atraumatic clamps, arterial sutures, and the interest in this particular problem of the young well-trained surgeons responsible for the care of battle injuries during the Korean War. During recent years this same dramatic improvement in the preservation of limbs is being accomplished in civilian life.

Let us consider briefly the types of arterial injuries which we may encounter. The injured vessel may be associated with wounds open to the exterior or with closed wounds such as fractures, blunt trauma, and in severe swelling. The diagnosis of

arterial injuries is sometimes quite clear cut, but is often very equivocal. A history of brisk bright red bleeding, controlled with difficulty, in the presence of an open wound may indicate an arterial injury. If such is the case, the patient is often in shock or bordering on shock with a depleted blood volume and has a fast thready pulse. A careful evaluation of the projected course of the missile should arouse one's suspicion of an arterial injury, but this is not always reliable. Bullets are particularly prone to follow an erratic course. It has been my experience that frequently the arterial injury is entirely unsuspected until during the course of debridement and exploration of the wound a sudden gush of arterial blood makes the extent of the wound perfectly clear. I should like to stress here that one does not have to have an absent arterial pulse to account for a serious arterial injury. The pulse may not be obliterated until bleeding has produced enough pressure in the wound for the hematoma to obliterate the artery from extrinsic pressure. The most important single aid in diagnosing arterial injuries is the maintenance of a very high index of suspicion. In certain locations an arteriogram is a fairly simple, and often helpful, diagnostic measure. However, when the diagnosis is not entirely clear it is a very simple matter to explore the artery and see whether or not there is an injury.

Arterial injuries in closed wounds are usually caused by fragments of bone trau-

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matizing the adjacent artery and tearing the intima but not the adventitia. This type of injury is usually followed by thrombosis. Even if the injury is not sufficient to tear the intima, it may produce vasospasm which, if persistent, is followed by thrombosis. One closed injury which deserves mention was described by the British during World War II as the Anteriolateral Compartment Syndrome. They observed that recruits would get an extremely painful brawny swelling of the anteriolateral compartment of the leg after strenuous marching. If untreated this led to ischemic necrosis of the muscles of this compartment. The strenuous activity causes the leg muscles to swell, and they, being confined in a tight compartment, produce pressure and vasospasm of the anterior tibial artery as it penetrates the interosseous septum into the anteriolateral compartment. Several cases similar to this were encountered in Korea; however the swelling was produced by shrapnel wounds of the extensor muscles. We soon found that extensive fasciotomy of the entire compartment was necessary in wounds of this area to decompress the compartment and to restore circulation through the anterior tibial artery.

In my opinion the treatment of open wounds of the extremities is the same in civilian life as in military life. I cannot understand the reluctance of some surgeons to debride and explore gunshot and stab wounds which may have injured structures in the depths of the wounds. This so called "conservative treatment" is actually not conservative at all and is mentioned only to be condemned.

Before an operative procedure is begun, a careful evaluation of the patient and adequate resuscitation cannot be stressed too greatly. A general anesthetic administered to a patient with a low blood volume may prove disastrous. It is far better to spend an hour or so resuscitating the patient adequately even though this delay may reduce the chance of the limb to survive. It is much better to have a live patient with an amputated limb than to have a dead patient with a successful arterial repair.

In exploring the wound the exposure should be adequate to determine the extent

of the damage and to control the vessel if it is found to be damaged. A clean laceration of an artery such as one resulting from a stab wound, presents very little problem to accomplish repair. The ends of the vessel are cleaned of surrounding tissue, atraumatic clamps are applied, and the ends are approximated with 5-0 arterial silk suture. A dilute solution of heparin is used to flush the lumen of the vessel during the repair. Following the anastomosis the wound is then thoroughly debrided and the repaired vessel covered with viable tissue and the wound closed or not, as the situation demands. Where there has been gross contamination with considerable devitalization of tissue, I prefer to pack the wound open and in four to six days do a secondary closure just as one does in war wounds. This subjects the patient to a second trip to the operating room, but I believe it results in a much lower incidence of wound infections. If there has been extensive loss of substance, the damaged artery must be debrided back to normal tissue and a graft inserted. Teflon is probably the material of choice at the present time for grafting, but if this is not available a vein graft can be used quite successfully. Hughes² reviewed the entire Army experience with vessel injuries during the Korean War. There were 304 cases of arterial injury. About one half, or 145 vessels, were repaired by primary anastomosis; 34 were repaired by vein graft; 48 were repaired by homologous artery graft; 35 were repaired by transverse suture; and 35 were ligated. The best results were obtained with end-to-end anastomosis. The amputation rate in this group was 9% while in those treated with vein grafts it was 11.8%, and with homologous artery grafts it was 33.3 percent. It is desirable, therefore, to bring the ends of the damaged vessel together whenever possible. It is important, however, that too much tension on the line of anastomosis be avoided. A segment of artery 1 to 1.5 cm. can usually be excised and the vessel mobilized sufficiently to do an end to end anastomosis; loss of greater length than this should be treated by grafting. In those instances where the artery has been traumatized sufficiently to cause thrombosis,

the damaged portion of the vessel must be excised and an anastomosis done. If there is fresh thrombus in the distal artery, retrograde flush is a very valuable means of clearing the distal circulation. I believe that only major arteries should be repaired; by this I mean all vessels down the leg to the popliteal division and in the arm down to the division of the brachial. The only exception to this rule is in rare instances where both the arteries, in the case of the forearm for example, are damaged and yet the tissues distal to the injury are such that if blood supply could be re-instituted a functional limb could be obtained. In such cases an attempt should be made to repair the small vessels. At times the artery will be found in spasm with no evidence of damage to the intima. These vessels should be treated by periadventitial stripping and application of a 2.5% solution of papavarine.

If this does not effect relaxation, sympathetic blocks may be of value. When these methods fail, a by-pass graft should be done.

In conclusion, I should like to emphasize the importance of being alert to the possibility of damage to vessels in all cases of trauma. Once the suspicion becomes confirmed then assume an aggressive approach to the problem. With the situation under good control, using good anesthesia, good exposure, and meticulous technic the results should be very gratifying to both the patient and the surgeon.

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TREATMENT OF BONE AND JOINT TUBERCULOSIS IN CHILDREN. Bosworth, David M., J. Bone & Joint Surg. 41-A:1255, 1959.

In times past, gradual healing of a tuberculous lesion was secured by the elapse of time at the expense of progressive deformity, advancing destruction of the skeletal and joint structure even though there was no assurance that the disease would not recur. There was no medicine proven to be of benefit. Surgical treatment was reserved for later stages of the disease and to correct deformities and, of course, general measures including dietary support and heliotherapy were invoked. At the present time, there is a complete reversal of the order of the modes of treatment of tuberculous lesions of the bone and joint. Medicine is now the first treatment in the form of isoniazid administered in doses of 3 mg. per kilogram of body weight per day. This medication provides the time so vitally needed in the treatment of the tuberculous process, time being all important in this treatment process. Thirdly come the general measures of nutrition, rest, splinting, etc. This now means that medical

treatment has provided the time which allows the general measures to improve the patient's condition so surgery, as needed, may be performed. Surgery is still invaluable in the management of this disease. Its greatest indication is spinal fusion which can prevent the collapse which is almost certain to occur on a mechanical basis and is frequently amazing by the repair that does occur in the vertebral bodies after spinal fusion. Arthrodeses in the weight-bearing joints are avoidable on occasion in children. The second use for surgery is the biopsy of suspicious lesions and it is advised that biopsy be performed prior to the administration of isoniazid and start the isoniazid immediately after surgery. No one knows how long to continue to give isoniazid, but it is suggested in children that the medication be continued for 6 months after the complete subsidence of all evidence of activity of the lesion roentgenographically and clinically, perhaps it would be wise to err on the side of safety and continue the medication much longer. Some patients have received medication for a period of five years. (Abstracted by Thomas F. Parrish, M.D., Nashville.)

Primary malignancy of the nasal passages is rare. Illustrative cases are reported herewith.

Malignancies Arising Primarily in the Nose: Case Reports*

HERBERT DUNCAN, M.D., Nashville, Tenn.

The majority of tumors seen in the nose are secondary and arise from other locations, for example, malignancies which arise in the paranasal sinuses and grow into the nose.

Most textbooks contain only scant reference to primary growths of the nose. For one of my cases, the melanoma, there was only the mention that this tumor had been reported rarely as originating in the nose. Coat's loose-leaf reference book states only 50 cases have been reported.

Therefore, I thought it might be of interest to this group to report the following cases, each a separate type of malignancy. If this paper can create interest in this subject, perhaps more of these patients could be salvaged. One can always find more cases of any disease if one is alert and will listen to some of the peculiar complaints of the patients.

Case 1. Mrs. A. E. J., a white woman, age 53, was first seen on Feb. 6, 1957.

Her chief complaint was of nasal obstruction, which had been present for several months but had become much worse during the past 2 weeks. She was unable to breathe through the left nostril and barely through the right, and the ears felt stopped up. There was no pain at this time.

Past history revealed that she had had a hemorrhoidectomy 2 weeks previously. Nothing was recorded in the hospital chart about her nasal condition and the laboratory reports had been within normal limits.

Her general health had been good.

Examination: The left nostril was filled completely with a rather firm tumor, which bled easily when touched. The septum had been completely to the right so as to occlude that nostril. No tumor mass could be seen in the right side. There was no sinus tenderness. The bridge of the nose was slightly broadened. With the nasopharyngeal mirror the tumor could be seen

protruding into the nasopharynx. No lymph nodes were palpable in the neck.

X-ray films of the sinuses were read as follows: There is a soft tissue mass in the base of the left nostril. The septum appears intact. There is a small soft tissue mass in the base of the right nostril which may represent tumor. Paranasal sinuses are normal. There is no evidence of bony destruction.

Biopsy was taken from the left nostril and reported as only chronic inflammatory mass.

On Feb. 12, operation was done at the Baptist Hospital under local anesthesia. A large tumor mass was snared off the septum. This arose back of the septum. After this was removed, the tumor was seen to have invaded the septum and had broken through to the right nostril posteriorly. Because of the extent of the invasion, no attempt was made to remove the entire mass. The nose was packed to control the bleeding.

The pathologic report was, *lymphosarcoma* arising from the nasal septum.

She was discharged from the hospital on Feb. 15 and cobalt therapy to the nose was begun. On Feb. 26, she was seen at the office and was found to have a good airway on the left with very little tumor mass remaining. On Mar. 12, she had developed soreness of her mouth and hoarseness. Lesions were found involving the hard and soft palate on the left and the left side of her larynx. Cobalt therapy was given to these areas.

She did fairly well for the next three months. On July 17, she was referred to an internist because of generalized malaise. All aspects of a rather extensive laboratory study were normal. There was a mass in the right abdominal wall and there were several enlarged, tender masses along each tibia.

On Aug. 23, she was re-admitted to the hospital because of a severe infection under the nail of the right big toe. Tumor was removed from this area. Multiple areas of tumor developed in the skin subsequently, and cobalt therapy was used; tumor tissue responded to this, but new areas continued to develop. She was then given nitrogen mustard I.V. and had a good response. The nose was clear at this time.

She was admitted to Vanderbilt University Hospital on Sept. 11, for blood transfusion and more nitrogen mustard. A mass was removed from the left nostril to provide an airway. The patient's course continued downhill; she was

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given large doses of steroids and transfusions.

She died on November 17, 1957, of generalized debility and widespread metastases.

Case 2. Mrs. E. T., a white woman, age 67, was first seen on Jan. 30, 1957 with a chief complaint of nasal obstruction and bleeding. There was some pain across the nose but this had been present only 3 weeks. The bleeding had been occurring for the past 6 months.

She had been seen by her physician who found a mass on the nasal septum. A biopsy was diagnosed as *adenocarcinoma* arising from the mucous glands of the nasal septum. She was then referred to me.

At my examination there was a large perforation of the anterior portion of the septum. A large tumor mass was seen arising from above and posterior to the perforation and almost completely filling the left nostril. There was some tenderness over the nose but none over the paranasal sinuses. There were no enlarged lymph nodes in the neck.

X-ray studies were read as without indication of involvement of any of the bones of the face or sinuses by tumor. All the sinuses were clear.

Operation was done at the Baptist Hospital on February 7, 1957. A bilateral rhinotomy was done and the nose laid back on the face. The anterior portion of the septum was removed with the bowie knife and the posterior portion with rongeurs from the roof to the floor and posteriorly to the nasopharynx. An attempt was made to remove the entire septum. As might be expected, the operation was very bloody and the view of the inside of the nose was not always clear. Blood was given to the extent of 3 units while the patient was on the table. The bleeding was controlled by tight packing and the nose was resutured to the face.

She did well and was discharged from the hospital in 6 days.

She has been seen at the office at regular intervals, the last visit being on Feb. 8, 1959, without any sign of recurrence.

More of the septum was left along the floor posteriorly than I had intended, but there have been no signs of recurrence as yet.

One interesting feature of this case is that the patient has very little deformity of the nose despite practically all of the septum being removed.

Case 3. W. W., a white man, age 69, was first seen on Aug. 29, 1957, with a chief complaint of nasal obstruction of the left nostril and some pain over the left side of the face. The left ear also felt stopped up. There had been no bleeding from the nose, but he did have some post-nasal drainage.

The past history revealed that he had been treated for sinusitis in the past. Also, his vision had been failing for the past year, but he had no pain in the eyes.

Examination: There was a large mass filling the left nostril. This was attached to the lateral wall of the nostril and arose from the inferior

turbinate and just anterior to the turbinate. The mass was rather blackish in color and bled easily when touched. The right nostril was congested and injected but contained no tumor masses. The left ear drum was dull but intact. There were bilateral immature cataracts which prevented viewing the eyegrounds. No nodes were palpable in the neck.

X-ray examination showed no evidence of bony involvement from malignancy in the sinuses or facial bones.

The nasal mass was removed by snare under local anesthesia for biopsy and sent to the Baptist Hospital for diagnosis. Bleeding was rather free and the nostril had to be packed to control it.

The biopsy was reported as follows: Section reveals a malignant neoplasm with a bizarre cellular pattern including many giant tumor cells. Melanin pigment is present in some of the tumor cells. Diagnosis—*malignant melanoma*.

The patient was referred to an internist for a complete examination relative to distant metastasis.

All tests, including liver function tests, were normal.

Operation was done at the Baptist Hospital on Sept. 10. A rhinotomy was done through a Ferguson type incision on the left side. Most of the inferior turbinate and the lateral side of the nose was removed. The nostril was packed and the nose re-attached.

The patient developed acute urinary retention and required a transurethral resection to relieve this. No tumor was found in the prostatic tissue removed. He was then discharged from the hospital and has been followed since.

Diagnosis of the tissue removed at the operation revealed only inflammatory changes but no tumor cells were found.

His course has been followed regularly since then and he was last seen on Mar. 1, 1960. No evidence of recurrence was present, as yet.

Case 4. J. G., a colored man, age 30, was an inmate of the State Prison.

The chief complaints were of nasal obstruction and bleeding from the nose during the past year. There had been no pain at any time. He had served in the Armed Forces in Korea.

Examination: There were multiple tumor masses in both nostrils, which were papillomatous in appearance. They bled easily when touched. The masses were present on all the structures in the nose,—septum, turbinates and floor of the nostrils. There was no sinus tenderness. The rest of the E.N.T. system was negative.

X-ray films of the paranasal sinuses were read as normal.

Therapy. Under local anesthesia, as for a polypectomy, most of the masses were removed with snare and forceps. Bleeding was only moderate and did not require packing.

The growths would recur in a period of one or two months and were removed as above.

Several biopsies were read as inflammatory

tissue only, and then I sent them to Dr. Demonbreun, who diagnosed them as *papillary carcinoma*, similar to that found in the urinary bladder.

The treatment of this type of carcinoma is rather vague as described in the textbooks I have read. Also, consultation with other men at meetings has failed to give me much help.

Due to the widespread nature of the tumor, surgery, except as I had done, seemed to be contraindicated. The tumor is radioresistant, so it was not irradiated.

Fortunately for me, the prisoner was released from prison before I had to decide on further treatment. I would invite suggestions as to the treatment in this case.

Case 5. J. M. T., a white man, aged 74, was first seen on Sept. 18, 1947.

He was brought in by his family because of a growth in the left nostril. An attempt had been made to get him to a physician before, but he had refused until the nose became sore and began to hurt. The growth had been present for many months, but only began to grow rapidly the past 3 to 4 months. It also began to bleed when it was touched. Soreness also had recently appeared.

Examination: There was a large cauliflower mass extending from the left nostril, which was 2 by 3 cm. This was attached to the septum by a broad pedicle. The mass was necrotic on the side next to the septum. The left nostril was clear when the tumor mass was lifted up. The right nostril was normal. The rest of the examination was negative except for shot-like nodes in the posterior cervical chain bilaterally.

Biopsy of the mass was taken and was found to be *squamous cell carcinoma*.

Operation was done at the Baptist Hospital on Sept. 26, under local anesthesia. The mass with

the mucous membrane and the underlying cartilage was removed with a portion of the floor of the left nostril. The mucous membrane of the opposite side was left intact.

The nose was packed and the patient left the hospital in 4 days.

He did not appear in the office for the next 2 months; when he came back there was a tumor mass on the septum on the right side. Biopsy was again reported as *squamous cell carcinoma*.

He was given deep x-ray to the nose. On Feb. 5, 1948, the mass on the right side was markedly reduced in size, but he now had a growth in the floor of the left nostril. By Mar. 3, the growth had extended out on skin and was larger in both nostrils.

Radium needles were placed in both nostrils and patient received 850 mg. hours of radiation. The mass shrank some under the above therapy.

Beginning with April 10, 1948 he received nine more deep x-ray treatments. No benefit was obtained from this and the growth gradually extended until it involved the face and the hard palate.

The patient expired Aug. 19, 1948 of pneumonia.

Comment. This case illustrates how not to handle this type of growth. It was done earlier in my career and I have since learned that to deal adequately with malignancies, one has to be radical if one hopes for a cure.

Summary

Five different types of malignancies arising primarily in the nose are reported. I believe these growths are more frequent than has been reported.

STAFF CONFERENCE

University of Tennessee College of Medicine*

Depression

DR. GARO H. AIVAZIAN: The subject for discussion today is the diagnosis and treatment of depressions. Depressive syndromes constitute one of the commonest emotional disorders encountered in general practice. According to some psychiatrists, the incidence of depressive syndromes has shown a definite increase during the past decade. The problem is of great importance because of impending or potential threat of suicide. Electroconvulsant therapy, so far the most effective treatment for depressions, has not been within the reach of the general practitioner. With the advent of chemotherapy, however, the prospect of an effective treatment within the reach of general practitioners seems to be possible in the foreseeable future. The patient selected for presentation has had several depressive episodes in the past and has been treated by various methods. The current attack was treated with drugs.

Dr. Geyer, the treating physician, will present the case history, mental status and the laboratory findings.

DR. LUISE GEYER: Mrs. X was admitted as a voluntary patient, referred by her family doctor because of excessive weeping and sleeplessness. Patient was a 52-year-old, white woman of pyknic type, with greying hair. At the time of admission, she was depressed, agitated and weeping constantly. She was apprehensive and begged for assistance. The present episode began last August with sleeplessness, loss of appetite, frequent weeping and many physical complaints, such as abdominal pains, constipation, hemorrhoids, pain in the rectum, general weakness and loss of weight. There had been a gradual loss of interest in almost everything, feelings of hopelessness, "cared nothing about living," multiple worries, particularly about finances, and a constant fear that she might have a fit or get violent. Patient denied having any suicidal thoughts and there had been no suicidal attempts. After a few days of treatment, patient was better composed and was able to answer coherently and relevantly. She seemed to be evasive about cer-

tain topics and displayed a slight degree of stereotypy. Her emotional reactions were appropriate to her ideas in quality but exaggerated in quantity. No remarkable fluctuation in her depressed mood was noted. No hallucinations, delusions, or memory defects were evident, and orientation in all three spheres had been normal. She was of low average intelligence.

The first known episode of depression was in 1929. Symptoms were similar to the present picture. Two miscarriages in 1928-29 preceded the illness. Patient spent approximately a month in a state hospital and was released improved. The second episode was in 1949, when the patient was admitted here, remaining two months. This attack was treated with electroconvulsant therapy and patient was discharged improved. However, she felt that she had been highly nervous, easily upset, and scared of the future ever since. In between episodes, the patient had managed to get along pretty well and had never had psychiatric help, other than that noted. Menopause occurred about three years ago and since she had been bothered by hot flashes and palpitations off and on. She had had difficulty in falling asleep for one year and had been taking sleeping pills every night.

Patient was born on a tenant farm, being the third of eight children. Except for possible epilepsy in the paternal grandmother, there was no known history of mental illness in the family. Her mother, to whom she was said to have been closer than the father, died in 1933 of causes unknown to the husband, the informant. During the patient's early adolescence, the father, a laborer in a lumber mill, became ill which required her to leave school and go to work to help support the family. She was employed at the same lumber company "handling staves," which was considered to be "a man's work" and very difficult. She continued working for several years. She was married to her present husband at age 18, after a brief period of acquaintance. As a young person, she was said to have been hard working and, while initially shy, appeared friendly and jolly later on. Two children were born to the couple followed some four or five years later by the previously mentioned miscarriages. A third child was born in 1939. The two older children had been a source of great concern to the parents. The eldest, a daughter, had been married and divorced four times, while the son was an alcoholic, frequently in trouble. Both were described by the informant as worthless, no-good people. The youngest child had had a much closer relationship with the patient. She had left school in order to stay at home with her mother. For one year this daughter had been contemplating marriage. The patient had few interests outside the home and relatively little contact with people. Patient was apparently brought up in a rather strict environment and was made to feel that it was something dirty to mention sexual matters at all. According to the husband, sexual adjustment

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had always been very poor and patient had never shown interest in marital relationships. Marital life had been unhappy because of "husband's drinking and because of patient's nagging at him." They always had to work very hard to make ends meet. The couple attended the Pentecostal Church.

Routine laboratory findings were essentially negative. The positive findings were: minimal external and small internal hemorrhoids. Barium enema revealed splenomegaly and a few diverticula of the colon. Sigmoidoscopy showed chronic hemorrhoids and a fistula in the anal region. Patient had extensive bilateral varicose veins which, in the opinion of the surgical consultant, did not require surgery.

Diagnosis: Manic Depressive Reaction, Depressed Type.

Discussion Following Interview:

DR. AIVAZIAN: The interview brought into focus a clear description of a depressive syndrome by the patient, marked alleviation of all symptoms except her somatic complaints, most of which have an organic basis, and no awareness on her part about the role of emotional factors in her illness. She attributed her illness to dieting. Patient gave a satisfactory picture of her childhood and relationship with parents.

Let's first consider diagnosis and stress.

DR. LORENZO RODRIGUEZ: This patient has had recurrent attacks of depression with insomnia, feelings of guilt and hopelessness, somatic complaints, constipation and anorexia. Each attack was preceded by a loss, a significant stress. At the present time, the patient is in the involutional period and is threatened with the departure of her youngest daughter. She has been overly dependent on this daughter. The previous personality seems to me to have been one of a self-effacing, immature, sacrificing person, who rigidly adhered to standards. She has worked hard from an early age, suffered much deprivation and lived frugally, yet, at no time has there been any overt expression of hostility or resentment. Immaturity has been equally manifest in her total behavior, as over-dependency, as well as in her sexual pattern, exemplified by the way she behaved on her wedding night, and later on in her sexual relationships with her husband. With this background, I agree with Dr. Geyer's diagnosis.

DR. AIVAZIAN: How much significance

do you attach to the stress factor, Dr. Ashkar, and how would you relate stress to diagnosis?

DR. FU'AD ASHKAR: The stresses, I feel, have been overpowering. The first episode followed an induced abortion and probably a lot of guilt generated with relation to that, as well as other incidents. In the second attack, she had to cope with the behavior of her two adolescent children, the loss of her mother, the loss of her sister, plus the loss of the bakery. At the present time, in addition to the two older children, there is the stress of the youngest child's impending departure from home. Whereas, singly, these stress factors would have been considered mild, their accumulation and consistent presence I consider as severe. Even though she has had three previous episodes, every time it has been a reaction to severe stress. My diagnosis would be a reactive depression.

DR. EDWARD SEILER: My impression is that this woman was brought up in a rather strict environment and consequently has developed a strong superego. If this was a manic depressive reaction, I would have expected her to have much higher mood swings, a cyclothymic personality and manic phases. I feel that she functions almost constantly in a state of mild depression and then added stressful factors come along and she goes into a deeper depression. I am more in favor of a reactive depression and feel that her prognosis for this episode is good, but as she faces future stressful situations, I think she may have other episodes.

DR. AIVAZIAN: A previous manic episode is not a prerequisite for the diagnosis of manic depressive reaction, depressed type. The emphasis is on the cyclic nature of the illness, which may be manifested by depression, mania or any possible combination of the two phases at different times during the course of the illness. Two other factors which are of help in the diagnosis are the previous personality and the presence and severity of precipitating causes. Both factors, however, are of relative importance. The majority of manic depressive patients show a previous cyclothymic temperament. The condition, however, is

not limited to this personality type as no mental disorder is limited to any one personality type. The same applies to the precipitating causes or the stress factor. Most manic depressive patients do not show significant stress and that's why the illness has been considered endogenous in origin. Agitation at this time, rather than retardation with depression, is due to the involutional coloring of the present episode.

DR. JAMES A. TAYLOR: It is well-known that the prepsychotic personality in those people who develop an involutional psychosis, depressed type, is a personality which is quite rigid and perfectionistic. Usually they are people who have accomplished something in life. I think of depression as a regressive phenomena. If this patient had been able to better express her hostility, probably she would have avoided her present illness. When we see rigid, self-punitive people, apparently lacking in a desire for pleasure, we can sometimes anticipate that under stress they will regress.

DR. AIVAZIAN: Now let us consider the dynamics and predisposition. Why did this patient react with pathological depression to life situations and stresses which were not very unusual?

DR. TAYLOR: The patient seems to have had a tranquil childhood, there is an absence of any severe emotional stress. Parental relationships seem to have been good. Economic privation was moderate and yet we are now talking about her sexual maladjustment and her inability to accept a mature role. Another puzzling thing—she was one of a large family—why didn't she then develop a greater ability to cope with family life? I would attach importance to the circumstances that you had mentioned.

MRS. JEAN C. CHAMBERS: Another possible interpretation is that she now distorts what her early childhood was like and probably it was not quite as rosy as she presents it. She certainly struck me as having a great deal of ambivalence, particularly toward males. She prefers to do a man's work, and yet men are no darn good and they are all the same. Also, the anal characteristics which predominate almost certainly have their origin in some kind of very strict early training, and she

herself says that her parents were strict in a great many ways. I would not give a great deal of credit to this rosy picture of daddy as a wonderful, hardworking man and mother as such a fine person. She wishes she could have been liked. Daddy certainly disappointed them all by getting sick and making her go to work and take over his role.

DR. RODRIGUEZ: During the interview, we had many hints of ambivalent feelings for her parents, husband and others.

DR. GEORGE WRIGHT: It is not unusual for a country girl to work in the fields at age 16, and was much less so 35 years ago.

DR. GEYER: The interview material clearly indicates that the abortions provoked a great deal of conflict and guilt, because of her religious convictions, followed by depression. The present attack, I believe, was brought on by her unconscious resistance to the daughter's marriage and fear of loneliness.

DR. GEORGE E. MARTIN: Environmental stress and inborn factors were mentioned. In the etiology of all illnesses, both factors participate. There is a definite history of very strict early environment of this patient. If we try to understand the dynamics in such families, and why the parents have to be so strict with their children and themselves, we see that they usually need to control their own impulses and wishes. In such an atmosphere, a child usually grows up fearful, inhibited and angry and with the feeling that he doesn't deserve any pleasures. We know how entertainment is a very important outlet for our feelings and tendencies. Children frequently have very angry feelings about being forced to go to work for the benefit of other siblings, sick parents, or other adults. At the same time, they are often unable to express this anger because of the strong punitive conscience created by very strict upbringing. This inability to express the feeling creates the existence of ambivalent feelings already mentioned. The fear of injury of her children while giving them baths is even something more than the usual case of neurotic ambivalence. It is really a panic created by her realization that she might hurt them or by her uncon-

scious wish to hurt them. What could be a more hostile gesture than letting the husband sleep on the floor for four days after her wedding. This patient's only outlet for resentment has been her continuous work. At the time her children were leaving her and she had less reason to work hard around the house, she lost an outlet for her resentment and tried to turn it against herself and became depressed. It was part of the reason she had breakdowns always after one or another daughter left the home. Guilt feelings about her abortion naturally added to her depression.

DR. TAYLOR: The family physician had an advantage, for instance, if he had known the patient as a young girl or even later, prior to the development of her difficulties, he would have had his own impression of the pre-psychotic personality and would be in a much better position to interpret her present reactions. I do not feel the family physician appreciates this advantage often. Personally, I do not believe we know the origin of these strong guilt feelings and her severely punitive attitude toward herself, but it may be of significance that two of her children show emotionally disturbed behavior. We can speculate, then, that she transmitted to them the feelings of rejection and insecurity which she must have felt as a child. I believe her early life has a bearing on her present reaction. It seems that all that had to happen was a certain set of circumstances, and she reacted as she had been conditioned. It is important that a depressive reaction be recognized for many reasons; it is not so important that the practitioner differentiate its exact type, but he must be able to recognize whether a depression is of psychotic proportions. It is his obligation to decide whether to refer the patient to someone else or to seek commitment. I think this case presents all the pertinent features that one sees in depressed patients.

DR. AIVAZIAN: Dr. Geyer will now review for us the treatment and the results so far.

DR. GEYER: The patient was treated with imipramine (Tofranil) 50 mg. I.M. q.i.d. for two days and 25 mg. p.o. thereafter. Agitation and depression were

greatly relieved within one week and she was able to concentrate much better. However, moderately severe Parkinson-like symptoms developed and the dosage was reduced to 25 mg. t.i.d. and Artane 1 mg. b.i.d. was given for a few days. Side effects disappeared rapidly. After three weeks of medication, although depression definitely subsided, marked anxiety persisted. For the relief of anxiety, Librium (Roche), 10 mg. q.i.d. was added to the treatment schedule. Symptomatic improvement has been very satisfactory and well maintained ever since. Interviews have been limited to longitudinal life history study.

QUESTION FROM FLOOR: Why were drugs preferred to electroconvulsant therapy?

DR. AIVAZIAN: Drugs were preferred for several reasons. She was in extreme distress but there seemed to be no suicidal risk. Her response to electroconvulsant therapy in the past had not been prompt. Moreover, we have had encouraging results with antidepressants, mono amine oxidase inhibitors (Nardil) and imipramine (Tofranil). Of 20 patients treated, results have been satisfactory in 14 patients.

DR. WILLIAM W. WALKER, JR.: I have treated 8 patients with Tofranil, 100 to 150 mg./day; results were very satisfactory in two patients, satisfactory in five patients, and one patient did not improve. One patient relapsed when the drug was withdrawn. Improvement appeared within a period of three to eight weeks.

DR. AIVAZIAN: Do you consider her a good candidate for psychotherapy?

DR. ASHKAR: No, I do not. The prognosis is not favorable because of her age, low intelligence, and her 56 year old defense of suppressing her feelings. She will have to learn to recognize her emotions to be able to cope with them. It would be almost impossible for her to recognize her dependency needs and admit she wishes her daughter to stay with her. However, I think that supportive psychotherapy should be tried over a period of time, together with environmental manipulation, for the purpose of mitigating the stress factors in as much as possible.

DR. ELIZABETH B. BARKER: Another

important factor to be considered in therapy is the impending marriage of her youngest daughter. The patient not only relies on this daughter for companionship, but also has probably identified with her in many ways, reliving her own youth as her daughter has grown up. Many of the patient's problems have been related to her role as a woman and when the daughter marries they may be brought into focus again. In interviews with the patient, it may be helpful if the therapist breaks down this identification with the daughter, pointing out the real differences in age and in their life situations. She should be encouraged to establish a friendly companionable sort of relationship with her husband, understanding that there are many other significant things in marriage besides sexual adjustment.

DR. MARTIN: The most important thing in therapy is to understand what produced the condition of the patient, in order that one may be able to help her. What we do with this understanding, however, is another matter. With this long-lasting process and rigid background of the patient, I would certainly hesitate to get into the dynamics of her illness in any way during her therapy. I would suspect that this might only increase her anxiety and make her more resistant to any help. It might even make her more anxious. The most effective approach might be strengthening of her defenses which she has effectively used for so many years. I would recommend some occupational therapy or activity which could interest her and could supply her with a defense against her anxiety. It would be preferable to choose activity out of which she would not get too much pleasure. This might help her, or at least prolong the time between the episodes of depression.

DR. AIVAZIAN: For the proper management of depressive reactions, it is very important for the physician to recognize the condition and have constant awareness of

the danger of suicide. It is also important to differentiate the psychotic type of depression from the non-psychotic. The former, and severe types of the latter, must be handled by referral. The goal in therapy is twofold: treatment of the episode and prevention of relapses with psychotherapeutic aid. In mild depressions chemotherapy and in severe types, electroconvulsant therapy is indicated for symptomatic relief. When the disorder appears to be predominantly a reaction to external factors, situational or reactive depression, emphasis should be given to supportive psychotherapy.

This case presents the pertinent clinical features of a manic depressive reaction (psychotic). The consensus was that the patient has not been thoroughly adjusted to life and that external stress has neither been severe nor unusual. Therefore, depression in her case appears to be predominantly of endogenous origin. The plan of treatment from here on should follow along three lines: treatment of her physical ailments, and improvement of her general condition, supportive psychotherapy and continuation of chemotherapy, to avoid relapse due to too early withdrawal of the drug. In reference to prognosis, there are reasons for a more optimistic attitude. With little or no help, patient has done quite well between the previous episodes: in the past she received only somatic treatment and maintained herself pretty well for a number of years; at this time of her life, although there are new stress factors, but many of the stresses of the past have been, or are being, eliminated, and finally her response to chemotherapy has been prompt and satisfactory. Early institution of drug therapy perhaps may prevent an imminent relapse in the future. Only further experience and followup studies will make valid evaluation of the effectiveness of antidepressants possible.

CLINICOPATHOLOGIC CONFERENCE

Acute Pancreatitis and Hepatic Cirrhosis*

This 26 year old white male used car salesman was admitted to the surgical service of the Vanderbilt University Hospital for the first time on August 17, 1953 because of hematemesis of one day's duration. He had apparently been well until two days prior to admission when he developed constant upper and lower abdominal pain which gradually became periumbilical. This was associated with nausea and on several occasions he vomited bile-stained material. The pain persisted, was unrelieved by Alka-seltzer, soda or whiskey, which he took in an attempt to gain relief; and he found it impossible to keep either food or liquids down without vomiting. He was admitted to another hospital where he was noted to be oliguric and only 60 cc. urine was obtained by catheterization. He was then given intravenous glucose and 5 units of whole blood. Symptoms persisted and on the first day of his Vanderbilt admission he vomited small amounts of dark and bright red blood on several occasions. He was transferred to this hospital for further diagnosis and treatment.

His past history was one of general good health. He had been a heavy consumer of alcohol for several years and averaged a pint of whisky per day in the previous 6 months. In the previous 2 months he had had occasional nausea, but no abdominal pain, indigestion, postprandial distress, hema-emesis or change in stool color. He had not noticed previous jaundice. There was no past history of cardiorenal disease, although he had noted occasional swelling of the ankles after prolonged standing.

Physical Examination: T. 101°, R. 20, P. 130, and B.P. 98/48.

He was seen to be a well developed, slightly obese young man in no great distress, but vomiting small amounts of bright red blood frequently. The skin was warm without evidence of weight loss or dehydration. The sclerae were icteric. The lungs were clear and the heart normal size, rhythm, without murmurs but with a rapid rate. The abdomen was tightly distended. The liver was palpable 3 to 4 finger-breadths below the right costal margin and was slightly tender. The spleen was not felt; there was shifting dullness without a fluid wave, and no bowel tones were audible. The remainder of the physical examination was unremarkable. The rectum was empty of feces.

Laboratory data:

Urine—dark amber; "many pus cells and a few WBC, no RBC seen"; WBC—10,600/cu. mm. "almost all polys and bands."

Aug. 17—Hgb. 11.1 Gm. % PCV—31%
 Aug. 18—Hgb. 8.7 Gm. % PCV—26%
 Aug. 19—Hgb. 6.1 Gm. % PCV—20.5%
 Aug. 21—Hgb. 8.1 Gm. % PCV—22.7%
 Blood sugar—142, 157, 192 mg. %
 N.P.N.—98, 160, 196, 264 mg. %
 CO₂—26, 29, 27, 30 meq./L
 K—6.7, 7.9, 8.2 meq./L
 Calcium—7.1, 7.3 mg. %
 Phosphorous—5.5 mg. %
 Amylase—325, 363, 228 S.U.
 Bilirubin—
 Bilirubin—Aug. 18—11.8 mg. % direct, 4.2 mg. % indirect
 Aug. 21—2.4 mg. % direct, 1.1 mg. % indirect
 Cephalin flocculation—3+/4+
 Thymol turbidity—6.0 units
 Cholesterol—155 mg. %
 Blood type—A+

Course in Hospital—The patient was catheterized on admission and only 2 cc. of dark urine obtained. About 2 hours after admission he became cold, clammy and began sweating. He was given 1,000 cc. whole blood with improvement; the B.P. rose to 120 systolic, but tachycardia persisted. He was then given 1,000 cc. D.W intravenously and the vomiting of bright blood ceased although he occasionally brought up dark blood. He had no bowel movement nor any urinary output. It was noted at this time that the blood which accompanied the patient here and which he did not receive was 0+ and incompatible. The patient was given nothing by mouth, received penicillin and streptomycin by I.M. injection, chlortetracycline I.V. and 500 cc. whole blood on both the 2nd and 3rd hospital days. On the 4th hospital day, he became delirious and combative requiring paraldehyde sedation. At this time, he was also noted to have "crunching rales" at both bases and grunting respirations. His temperature gradually rose from admission to 104.2° on the day of death. On the 5th hospital day he suddenly had a short seizure and quickly expired.

DR. DAVID ROGERS: As an internist, it gives me particular pleasure to be asked to consider a problem involving the differential diagnosis of acute abdominal pain. I hope this will give me the opportunity to prove something that I have long suspected—that the differential diagnosis of surgical disease is considerably more straightforward than the differential diagnosis of medical illness

Certain features of the illness which carried this young man from apparent good health to death in five days must be satisfied in our final diagnosis. I would list these as follows:

1. Unrelenting, progressive, peri-umbilical pain.

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2. Acute renal failure (or if you prefer, the syndrome of lower nephrosis).
3. Gastrointestinal bleeding.
4. Rapidly developing ascites.
5. Ileus
6. Hepatomegaly, icterus, and evidence of parenchymal liver disease.
7. A falling hematocrit.

In thinking about this patient, the following possibilities seem worthy of consideration:

1. Perforation of an abdominal viscus (peptic ulcer)
2. High intestinal obstruction secondary to:
 - a) hernia
 - b) intussusception
 - c) lodgement of a gallstone in the duodenum
 - d) mesenteric thrombosis or embolus
3. Acute viral hepatitis
4. Weil's disease
5. Carbon tetrachloride poisoning
6. Acute hemorrhagic pancreatitis

Let us now review the facts which have been given us in the protocol and consider each of these entities:

1. Perforated peptic ulcer can produce rapidly advancing generalized abdominal pain. Shock is a common accompaniment of acute perforation and vomiting appears relatively early. There are, however, certain features of the present case which suggest that such an episode did not occur. When the peritoneal cavity is contaminated by perforation, simultaneous bleeding into the lumen of the gastrointestinal tract is unusual. Furthermore, such an occurrence could not explain the impressive jaundice observed in this patient. I believe we can safely discard this possibility.

2. High intestinal obstruction can produce generalized abdominal pain which may localize in the peri-umbilical region. Again, the onset of vomiting is rather prompt. Against such a possibility is what I would interpret as rapid onset of shock and acute renal failure. Bloody intestinal contents might be noted if the obstruction was produced by intussusception, or mesenteric thrombosis with gangrene of the involved intestine, but both seem unlikely in this patient. It would be difficult to ex-

plain the rapid onset of ascites by any condition producing obstruction. Perhaps the most telling argument against high obstruction is the fact that the patient had a persistently "quiet" abdomen. In acute intestinal obstruction, hypermotility is ordinarily observed during the terminal phases of the illness. I thus do not believe that obstruction can explain the problem before us today.

3. Patients with acute viral hepatitis can present severe abdominal pain which may mimic the acute abdomen. Ordinarily pain in hepatitis localizes rather promptly in the right upper quadrant. Vomiting is a common accompaniment of this disease. When this illness proceeds to acute hepatic necrosis, renal failure can occur. In this event, however, the liver shrinks rapidly and one would not anticipate a large liver. Furthermore, such a diagnosis would not satisfactorily explain this patient's progressive anemia.

4. In an acute febrile illness with evidence of combined renal and hepatic disease, one should consider Weil's disease, the infection produced by *Leptospira icterohaemorrhagiae*. I think in this instance such a possibility is most unlikely. Weil's disease is ordinarily heralded by shaking chills, high fever, a prominent cough and conjunctivitis. Furthermore, evidences of both liver and renal involvement do not appear simultaneously. Jaundice becomes apparent during the first week of the disease, and renal failure is a late phenomenon.

5. In an alcoholic presenting combined hepatorenal disease, the possible ingestion of some hepatorenal toxin should also be considered. Carbon tetrachloride is perhaps the most common etiologic agent. Such a disease process would not however, explain the falling hematocrit and progressive ascites which were noted here.

6. I believe that all of the evidence presented suggests that this young man had acute hemorrhagic pancreatitis. This disease process is commonly seen in patients with an alcoholic history. It generally arises in patients with cirrhosis, and frequently is seen in association with biliary tract disease. The onset with upper and lower abdominal pain which became peri-

umbilical, the severity of the pain, the early onset of vomiting, are all typical features of acute pancreatitis. Because of the close association of the pancreas with the celiac plexus, shock is often observed. A persistent tachycardia is the rule. Extensive pancreatic necrosis liberates pancreatic enzymes which damage blood vessels in the surrounding areas and pancreatitis is one of the few disease processes producing bloody ascites. Such a process would satisfactorily explain the abdominal fluid and falling hematocrit. The protocol does not suggest sufficient blood loss from the gastrointestinal tract to explain this rapid and profound anemia. Although flank discoloration was not noted on the present patient, I think it quite probable that extensive bleeding into the abdomen occurred in this patient.

The finding of a persistently elevated blood sugar is compatible with such a diagnosis. Hyperglycemia occurs with destruction of the pancreatic islets in 25 to 35% of patients with pancreatitis. Bilirubinemia is often seen and may be explained by swelling and edema obstructing the common duct as it enters the duodenum. It should be noted however, that in most cases of acute pancreatitis, bilirubinemia rarely reaches the present high level.

In reviewing the chemical determinations reported here, one is struck by the unusual depression of the serum calcium. Although hypocalcemia is a common accompaniment of chronic renal failure, serum calcium levels of 7.1 and 7.3 milligrams % seem unusually low with minimal phosphorous retention (5.5 milligrams %). In acute pancreatitis, the fat necrosis occurring within the peritoneum frees fatty acids which avidly bind calcium in soap-like complexes, and unexplained hypocalcemia occurring in association with abdominal pain should suggest this disease. I believe that the ileus observed can be satisfactorily explained as a secondary phenomenon resulting from the generalized peritonitis.

There are, however, certain features of the present case which are difficult to explain on the basis of pancreatitis. These are:

1. The hepatic enlargement
2. The vomiting of blood

3. A low serum amylase
4. The high serum bilirubin
5. The presence of acute renal failure

Because the diagnosis of acute pancreatitis seems inescapable, I am forced to explain these atypical features in some other way.

This man has an impressive story of alcoholism. He has chemical evidence of parenchymal liver damage. I thus think it reasonable to postulate that this man has underlying liver disease—either the fatty infiltration seen in alcoholics or more advanced fibrosis and cirrhosis. His liver disease might well have been accentuated by obstruction of the common duct secondary to pancreatitis and hypotension.

Hematemesis is not a feature of pancreatitis. Again, his alcoholism may explain this symptom. We have little to suggest portal hypertension in this patient. He has, to our knowledge, never previously vomited blood, he has no splenomegaly, he has no stigmata of chronic liver disease. I thus believe we cannot confidently predict that his bleeding is secondary to varices. I would think it more likely that this represents superficial ulceration of his gastric mucosa secondary to alcoholic gastritis or protracted vomiting.

The serum amylase determinations performed on this man are elevated. Values over 150 units are considered abnormal in the Vanderbilt clinical laboratory. Nevertheless, the values obtained here which ranged from 228 to 263 units are unusually low in a setting of acute hemorrhagic pancreatitis. I believe this finding can be explained by the stage of disease during which these values were obtained. Serum amylase levels commonly rise to 1,000 units or above in the first 24 to 48 hours of pancreatitis, then decline rapidly to normal levels, despite continuing active disease. I would thus postulate that serum amylase levels were more strikingly elevated in the first 72 hours of his illness, but had fallen prior to his admission to Vanderbilt University Hospital.

The impressive jaundice can perhaps be explained by a combination of underlying liver disease, obstruction secondary to the pancreatitis and the increased amounts of bilirubin presented to the damaged liver by

absorption of the blood breakdown products in the ascitic fluid and gastrointestinal contents.

I think the acute renal failure can be explained quite satisfactorily on the basis of shock secondary to pancreatitis and accompanying blood loss. The notation that an incompatible bottle of blood accompanied the patient suggests the possibility that a transfusion reaction may have occurred during the administration of one of the five units of blood given prior to his admission, but I see no particular need to implicate such a possibility in the present case.

I would predict that Doctor Shapiro will show us acute necrotizing hemorrhagic destruction of the pancreas with fatty necrosis, and involvement of surrounding vessels with extensive bleeding into the abdomen. I believe this patient will have evidence of chronic liver disease with a superimposed obstruction to the common duct. I believe we will see an acute gastritis with superficial ulcerations, or esophageal varices, and that the kidneys will show the extensive tubular destruction associated with acute renal failure.

Final Diagnosis: (1) Acute and chronic pancreatitis with fat necrosis in adjacent peritoneum.

(2) Tubular necrosis of kidney and cast formation secondary to transfusion reaction.

(3) Early Laennec's cirrhosis.

(4) Esophageal varices with gastrointestinal hemorrhage.

(5) Uremic pneumonitis with early bronchopneumonia.

DR. JOHN SHAPIRO: The situation that we encountered at autopsy was pretty much as Dr. Rogers has predicted. However, there were esophageal varices which were not huge but apparently had ulcerated, perhaps due to regurgitative esophagitis, and a considerable amount of blood was present in the stomach and intestinal tract. A site of bleeding from a varix was ascertained as there was a hemorrhagic crust over one. Often times we are unable to demonstrate the exact point of bleeding from such dilated veins. The rest of the gastrointestinal tract was not remarkable.

When the abdominal cavity was opened there was no fluid nor blood in the cavity.

Numerous areas of fat necrosis were identified around the pancreas, mostly localized in the lesser peritoneal sac. The pancreas itself was diffusely indurated and seemed fibrotic as the lobules would not move freely one on the other. In addition, throughout the whole pancreas there were focal areas of necrosis evident as one examined the cut surfaces. The microscopic examinations of these necrotic areas leave the impression that they had all occurred at approximately the same time and probably within the last 5 days or thereabouts. We felt there was enough fat necrosis to cause considerable binding of calcium in the form of salts of the fatty acids and thus depress the serum calcium, as Dr. Rogers suggested. In addition, there was microscopic evidence of fibrosis between lobules and a chronic inflammatory infiltrate which I am sure indicates chronic pancreatitis. We found no evidence of reflux of bile or squamous metaplasia of the pancreatic ducts to offer as possibilities in the pathogenesis of the pancreatitis. The common bile duct was patent as were the major hepatic ducts and the gallbladder showed a minimal chronic inflammatory reaction.

The liver was large weighing 3000 grams and on gross and microscopic showed the picture of early Laennec cirrhosis with a considerable amount of fatty infiltration and periportal fibrosis. We thought there was sufficient intralobular retention of bile by virtue of swelling and obstruction of the smaller ducts to account for his increase in bilirubin in the blood. In addition, it was also felt that increased amount of pigment had been delivered to the liver for excretion because of hemolysis associated with incompatible blood.

The kidneys were very interesting. Gross examination revealed them to be about normal size though the cortex seemed to be swollen with some loss of striations. We found no evidence of chronic renal disease but a variety of acute changes ranging from acute necrosis of the convoluted tubules to obstruction by pigmented casts which we feel certain to be derived from broken down red cells. One can actually trace fusion of the material to form the casts so prominent in the collecting tubules. So we

feel that in addition to the insult to the kidneys caused by shock there was damage due to the series of events associated with lysis of cells in a transfusion reaction. That such reactions can occur even in association

with administration of blood from the so-called universal donor (type O) is now well established and represents another hazard associated with administration of blood.

The Coronary Profile: An Approach to the Pre-clinical Diagnosis of Coronary Artery Disease.

G. Douglas Talbott, M.D., Bessie Keating, M.T., Darwin Palmiere, M.P.H., and Elmer Hunsicker, B.S., Am. J. Cardiol.

It has become obvious in the recent past that our present diagnostic methods are both gross and inadequate. Not only have single diagnostic studies been insufficient to draw definite conclusions concerning the status of coronary artery disease, but all too often the patient has been subjected to a gamut of laboratory and medical tests, with no defects demonstrated. The patients, subsequently, succumb thereafter to coronary artery disease.

The incident of coronary artery atherosclerosis has made it mandatory for methods to be devised for detecting disease in its early and preclinical phase. So, it is recognized that the most basic mechanisms of the etiology and pathogenesis of coronary artery disease are unknown. The authors tried to establish a reliable diagnostic system for community-wide application for the pre-clinical detection of this disorder. A definite need is stressed for a diagnostic approach which will reliably identify individuals predisposed to coronary artery disease before clinical symptoms manifest themselves.

The coronary profile is an approach to the problem of detecting atherosclerosis in its incipient stages. This approach results from recognition that no one diagnostic method, in itself, contributes enough information to draw definite conclusions about the coronary artery status.

An attempt was made with the coronary artery profile to combine chemical and physical tests, X-rays, and personal history data into a semi-quantitative rating system, which will reliably identify persons predisposed to this disease.

The coronary profile, assigns to the lipid chemistries of an individual 45% of the total profile. The lipid chemistries, with equal ratings, are defined in this instance as the measurement of the alpha and beta lipoproteins by electrophoresis, the athero-index of Barr, and the determination

of cholesterol, using the modified Zak method. Twenty percent of the profile is classified in the physical examination, 5% being allotted to the blood pressure, another 5% to the peripheral vascular change, and 10% to the eye-grounds. Electrocardiographic studies account for 20% of the coronary profile, with stress electrocardiograms, comprised of a modified Master's test, composing the bulk of the percentile ranking.

Ten percent of the profile is then given over to X-ray examination of the heart and aorta. Aortic abnormality is distinguished, using oblique films of the chest, noting the presence of widening, tortuosity or calcification. Five percent of the profile involves arteriosclerotic cardiac symptoms, which may be past history of coronary artery disease with premonitory symptoms such as dyspnea, vertigo, chest pain, weakness, diaphoresis, or true angina.

The more abnormal the patient's findings, the lower his grade.

Each subject is assigned to a rating zone designated as (red, yellow, or green) depending upon his total grade. The red zone (0 to 74%) is interpreted as poor cardiovascular status. The yellow zone (75 to 84%) indicates there is concern about the status of coronary arteries, while the green zone (85 to 100%) means that the evaluator feels that the integrity of the cardiovascular status is within normal limits.

In this study, 163 test patients were evaluated—53 had coronary profile ratings in the red zone, 51 in the yellow zone and 59 in the green zone. Subsequent to the coronary profile ratings, 32% developed clinical symptoms in the red zone, 11.8% in the yellow zone and 1.7% in the green zone.

These test subjects were followed up to 4 years.

The potential values of this approach would appear to justify further investigation of its reliability and its possible modification into a simplified detection method with community-wide applicability. (Abstracted for the Middle Tennessee Heart Association by Marvin J. Rosenblum, M.D., Nashville.)

President's Page



HARMON L. MONROE

I'm not sure where the phrase originated . . . it may have been first uttered by an ancient Greek philosopher . . . or it may have been coined in the gray flannel atmosphere of Madison Avenue. However, I am sure that the erudite person who advised us to "never underestimate the power of a woman" knew what he was talking about.

In reviewing the events of the past year, I fear that some of us may still underestimate the value of the collective woman-power which is available to us in our efforts to further the ideals and objectives of organized medicine. I refer, of course, to the Woman's Auxiliary to the Tennessee State Medical Association.

When one views the activities and accomplishments of our Auxiliary, one cannot feel other than a sense of pride in and appreciation to the organization and its individual members. The Auxiliary's continuing program includes such important activities as legislation, public service, civil defense, paramedical careers recruitment, and safety.

The annual Health Project Contest, although sponsored by TSMA, is implemented by the Auxiliary. The fact that this is one of the finest examples of public service performed by organized medicine is attested to by the national recognition that the contest and the Auxiliary have received. Even more important, many thousands of Tennessee high school youngsters throughout the State have been imbued with an awareness of the importance of community health through their participation in health projects during the seven years the contest has been offered. Its success is evidenced by the increasing number of entries, and reflects credit upon the efforts of local Auxiliary chapters.

In our efforts, as a profession in Tennessee, to defeat the Forand Bill and to achieve passage of the Smathers-Keogh-Simpson Bill, we have been materially assisted by the Auxiliary. Working in close coordination with TSMA, the Auxiliary has been most effective. This effectiveness has been obtained through the personal activities of our Auxiliary members who have contributed unselfishly of their time and efforts.

Space does not permit me to set forth the many other accomplishments of our Auxiliary. Suffice it to say, the Auxiliary has established a distinguished record of achievement.

It is to be regretted that there are areas in the State in which the Auxiliary has not received recognition, nor even acceptance. Efforts on the part of the Auxiliary to expand its membership, through the organization of new chapters, have been thwarted by the indifference and, in some cases, the antagonism on the part of county medical societies and their members.

I cannot comprehend any justification for such an attitude. I feel strongly that an objective analysis of the organization's record can only lead one to the conclusion that its growth and expansion are to be vigorously encouraged by the physicians of Tennessee.

I am proud of our Auxiliary. It has more than adequately proven itself as a potent force, working with TSMA to attain common objectives. It is deserving of our complete and wholehearted support.

H. L. Monroe, M.D.

THE JOURNAL

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MARCH, 1960

EDITORIAL

TREPOPNEA

Doctor, I can't sleep on my left side! Most everyone who practices medicine hears this remark rather frequently. We are inclined ordinarily to make some reassuring statement relative to the old-wives tale that explains the fallacy in the thinking, all mental, of course, about pressure on the heart, etc. But is it all mental?

Dr. Francis Wood¹ of Philadelphia, an astute and careful clinical observer, in 1937, noted what he interpreted as a causal relationship between position in bed and effectiveness in breathing.

Inquiry indicated that the great majority of cardiacs prefer the right recumbent position. The moving of a sleeping cardiac into the left lateral position, without awakening him, was associated with dyspnea and occasional orthopnea, all subsiding as

the patient resumed the right lateral position. The awake patient noted, in addition to dyspnea, the development of palpitation, precordial discomfort, and fatigue, related to the left lateral position.

The fluoroscopic study of patients gave no clue of the mechanism causing the symptoms in the left lateral position. Discussion with anaesthetists elicited the following facts: (1) It is unwise to shift a cardiac patient undergoing an operation from side to side since sudden arrhythmias or changes in blood pressure may occur. (2) Certain pregnant women at term may develop marked hypotension when they assume the supine position. (3) Certain patients preparatory to nephrectomy, when placed on the side and "Jack-knifed" over a sandbag may develop dramatic hypotensive episodes, which are promptly relieved by removing the sand-bag.

The inference is that the above problems are the consequence of marked interference with venous return to the right side of the heart following obstruction of the inferior vena cava. It is of significance that these postural influences do not seem to influence patients with primary pulmonary disease as markedly as those with congestive heart failure. It is likely that when a patient with pulmonary congestion from heart failure rolls into an unfavorable position, the heart sags to that side, obstructs pulmonary venous return, and further increases pulmonary congestion, which results in the production of shortness of breath.

Oh, yes, why this term trepopnea; the patient twists or turns, (trepo) into a condition of comfortable breathing.

A. W.

★

THE PSYCHIATRIC PATIENT IN THE GENERAL HOSPITAL

The advances in medical science permit and require, at times, complete re-orientation of one's thinking.

Surely, as one surveys the past century, thinking with respect to the care of the mentally ill has moved a long way. In the 'historical note' published recently on the founding of Central State Hospital appeared

¹Wood, Francis Clark: Trepopnea, A.M.A. Arch. Int. Med. 104:966, 1959.

²Historical Notes. J. Tennessee M.A. 52:470, 1959.

the following description of the insane, written in 1851,—“Pining in cells and dungeons, pent in log cabins, bound in ropes, restrained by leather thongs, burdened with chains—now wandering at large, alone and neglected, endangering the security of property, often inimical to human life, and now thrust into cells, into pens or wretched cabins, excluded from the fair light of heaven, from social and healing influences. . . .” These customs in the care of the insane promptly gave way to their commitment to Central State Hospital and the other similar hospitals which followed. Care thus moved into the era of humane custodial environment.

In the meantime psychiatry, in the modern sense, was born and, as often happens from catastrophe, World War I gave the impetus to expansion and recognition of the specialty and those practicing it. Mental disease was now studied scientifically, and psychotherapy began to have its place in the mental institution. At about the same time adequate treatment became possible for an organic disease, general paresis, which contributed hugely to the population of our mental hospitals. Shortly shock therapy played its part in shortening the illness of certain of the functional psychoses and permitting more successful psychotherapy. World War II again added impetus to the understanding of both the lesser and major psychoses, and some information relative to the numbers of the maladjusted in the population. Electroencephalography and psychologic testing provided diagnostic help in the study of mental disease. And, finally, as of the present, evolved the use of the ataractic drugs in the treatment of, especially, the disturbed patient. The rapid control of these patients and their subsequent accessibility to psychotherapy proved amazing.

It is the latter which now permits new thoughts absolutely inconceivable twenty-five years ago. These thoughts include the hospitalization of the psychiatric patient in the general hospital. Over the past quarter of a century 600 hospitals in the country have established functioning psychiatric units. This advance in medical thinking was one of the topics under consideration at

the Sixth Annual Conference of Mental Health Representatives of State Medical Associations, sponsored by the Council on Mental Health of the A.M.A., held in Chicago last November.

The need for, and the place of a psychiatric unit in the general hospital was developed in the discussions on this topic. This was summarized in the statement that, “Perhaps its most important relationship is to the general hospital itself. In this role it must be able to provide effective treatment for psychiatric emergencies; it must offer a modern and well equipped diagnostic facility, provide a center for psychiatric education to medical students, psychiatric residents, hospital staff, physicians in the community, and ancillary personnel. It must also serve as a center for broad consultative services to all parts of the hospital. And finally it should provide a locus for research in psychiatry and psychosomatic medicine.”

The “pros” and the “cons” of operating psychiatric units or of admitting psychiatric patients on medical units in the general hospital were considered. It appears likely that both mechanisms may be used, even in the same hospital, depending upon the patient. The discussions involved thoughts on architectural planning to permit flexibility of design so that units might be “open” or “closed” depending upon circumstances. The development of “self-care” units in general hospitals is in an evolutionary stage and important as related to psychiatry, since 75% of psychiatric patients could be cared for in such units.

Voluntary health insurance plans are beginning to recognize the need for hospitalization of the mentally ill. Some are now offering such care with time limits. The growth of co-insurance and deductible plans will provide for mental illness. Medical problems involved in the hospitalization of the mentally ill in general hospitals are recognized, and new legislation has been enacted in some areas to meet this sphere of progress.

For some years the American Psychiatric Association and Academy of General Practice have been working closely to interest

(Continued on page 118)

Tennessee State Medical Association

1960 Annual Meeting

NASHVILLE, TENNESSEE

April 10-13

MAXWELL HOUSE

NOEL HOTEL

TOP TALENT FEATURED FOR ANNUAL MEETING

GUEST SPEAKERS

(General Scientific Meeting)

Charles L. Martin, M.D., Clinical Professor of Radiology, Southwestern Medical School, University of Texas, Dallas, Texas.

Walter W. Fischer, M.D., Associate Professor of Clinical Surgery, New York University Medical School, New York, N. Y.

Harry Prystowsky, M.D., Professor of Obstetrics and Gynecology, University of Florida College of Medicine, Gainesville, Florida.

Richard C. Proctor, M.D., Department of Psychiatry, Bowman Gray School of Medicine, Winston Salem, North Carolina.

Rudolph Noer, M.D., Professor of Surgery, University of Louisville School of Medicine, Louisville, Kentucky.

Hamilton Ford, M.D., Titus-Harris Clinic of Neurology and Psychiatry, John Sealy Hospital, Galveston, Texas.

Hotel Reservations: —————→ Write to:

GENERAL SCIENTIFIC MEETINGS

MEETINGS OF SPECIALTY SOCIETIES

(Afternoons)

April 11-12-13

TECHNICAL EXHIBITS

The Hotel of your choice

- THE NOEL
- THE MAXWELL HOUSE
- THE HERMITAGE
- THE ANDREW JACKSON

President's Banquet



Monday, April 11 • Ballroom,
The Maxwell House

House of Delegates



Sunday, April 10 • Tuesday, April 12
Maxwell House

Registration Daily



8:00 a.m. to 5:00 p.m. . . . No Registration Fee

Special Section

SCIENTIFIC PROGRAM OF THE 125TH ANNUAL MEETING OF THE TENNESSEE STATE MEDICAL ASSOCIATION

General Information

In this program is detailed information on the 1960 Annual Meeting of the Tennessee State Medical Association in Nashville, April 10-13.

► *Registration*

The registration desk will be located in the main lobby of the Maxwell House. All members, visiting speakers, interns, residents, and guests are urged to register. Admission to all sessions and to the exhibits is by a badge secured at the registration desk. *There is no registration fee.* Programs for all activities during the annual meeting are available at the registration desk. Those eligible to register are members of the Tennessee State Medical Association; physicians from other states who are members of their respective State Medical Society; residents, interns, and medical students.

MISS WILLARD BATEY
Chief Registrar

► *Registration Hours*

Sunday, April 10—11:00 A.M. (Special Registration for Members of the House of Delegates from 11:00 A.M. to 1:00 P.M.) Advance registration for Exhibitors and Early Arrivers will be conducted from 3:00 P.M. to 5:00 P.M.

Monday, April 11—8:00 A.M. to 5:00 P.M.

Tuesday, April 12—8:00 A.M. to 5:00 P.M.

Wednesday, April 13—8:00 A.M. to 12:00 Noon

► *Annual Meeting Headquarters*

Headquarters are in the Maxwell House where many activities are scheduled. Practically all of the specialty societies will conduct their meetings concurrently with TSMA in the Maxwell House and Noel Hotel.

► *TSMA Headquarters Office*

Rooms 356 and 358 located on the second floor of the Maxwell House will be the headquarters of TSMA during the meeting. A member of the staff will be available to assist you at all times. Members of the House of Delegates, Officers, and Reference Committee Chairmen can secure secretarial help when needed. Your headquarters staff is available to assist you in your needs.

J. E. Ballentine, Executive Director

Jack Drake, Public Service Director

Roland Stetler, Jr., Administrative Assistant

Miss Willard Batey, Records & Bookkeeper

Miss Louise Little, Secretary

Mrs. Jean Ragsdale, Secretary

► *President's Banquet and Social Hour*

The President's Banquet will be preceded by a Social Hour sponsored by the Tennessee State Medical Association, beginning at 6:00 P.M. on Monday evening, April 11th. The Social Hour will be conducted in the Cumberland Room at the Maxwell House and the Banquet will follow at 7:00 P.M. in the Ballroom. Tickets are available at the registration desk.

*Message Center—Emergency Telephones
Nashville—AL 5-8551 and AL 5-8552*

Telephone service will be installed for your convenience in the Message Center on the Mezzanine

Floor of the Maxwell House. In-coming emergency calls for those attending the meeting will be handled. You will be notified of your call by a "flash screen" in the Auditorium of the General Scientific Meetings and you will be paged when necessary. Notify your secretary or patients to contact you during the annual meeting at the TSMA Emergency Numbers—Nashville—

AL 5-8551 and AL 5-8552

► *Banquet Tickets*

Tickets to the Social Hour and President's Banquet will be available at the registration desk. Tickets to specialty society luncheons and banquets, as well as the Woman's Auxiliary affairs, can be obtained from their respective registration desks. *Purchase your tickets at the time of registration.*

► *Woman's Auxiliary*

The Woman's Auxiliary of TSMA will conduct all phases of their Annual Meeting in the Andrew Jackson Hotel. The registration desk for the Auxiliary will be located in the lobby and all Committee Meetings, Board Meetings and the general sessions will be conducted at the Andrew Jackson.

► *House of Delegates*

The first meeting of the House will be held on Sunday, April 10th, beginning at 1:00 P.M. in the Ballroom of the Maxwell House. The second session will be conducted on April 12th, beginning at 9:00 A.M. in the Old South Room at the Maxwell House.

► *General Scientific Meeting*

The General Scientific Meetings of TSMA will be conducted from 9:00 A.M. until 12:00 Noon on the mornings of April 11-12-13 in the Ballroom of the Maxwell House.

► *Specialty Societies*

Thirteen specialty societies have arranged to conduct their meetings concurrently with the Tennessee State Medical Association. The scientific and business sessions of the specialty societies will be conducted in the afternoons of April 11-12-13. See details in the program listed under each of these days.

► *Technical Exhibitors*

The Technical Exhibitors will be located in the Main Lobby and on the Mezzanine floor of the Maxwell House and may be visited each day of the annual meeting beginning on Monday, April 11 from 9:00 A.M. until 5:00 P.M. and on Wednesday, April 13 from 9:00 A.M. until 12:00 Noon. The exhibits are an important part of the 125th annual meeting and each physician will be well repaid by spending some time inspecting them. The exhibits will display many educational features of the medical supply world.

ANNOUNCEMENTS AND SPECIAL MEETINGS

President's Banquet

Maxwell House

Monday, April 11—7:00 P.M.

(Social Hour—6:00 P.M.)

Sponsored by TSMA and conducted in the
Cumberland Room of the Maxwell House

Harmon L. Monroe, M.D., President, Presiding.

Guest Speaker—Dr. John Furbay, Director of Air World Education, Trans World Airlines.

Introduction of President-Elect—Ralph O. Rychener, M.D.

Special Awards:

Presenting Tennessee's outstanding physician of the year by Joseph W. Johnson, Jr., M.D., Speaker of House of Delegates.

Presenting Health Project Contest Winner by W. O. Vaughan, M.D., Chairman, Board of Trustees.

Presenting award to Miss Kay Schuele, Memphis, winner of the National Science Fair Award.



Woman's Auxiliary to the Tennessee State Medical Association

April 10-11-12-13, 1960—

Andrew Jackson Hotel

Registration

Sunday, April 10—2:00 P.M.-4:00 P.M.

Monday, April 11—8:30 A.M.-4:00 P.M.

Tuesday, April 12—9:00 A.M.-12:00 Noon

Sunday, April 10, 1960

2:00 P.M.-4:00 P.M. Special Committee Meetings

Monday, April 11

9:30 A.M. Registration

9:30 A.M. Pre-Convention Board Meeting
—Andrew Jackson Room

6:00 P.M. TSMA Social Hour—Maxwell House

7:00 P.M. President's Banquet—Ballroom
—Maxwell House

Tuesday, April 12

9:30 A.M. General Session

—Andrew Jackson Room

12:30 P.M. Luncheon, Ballroom,
Andrew Jackson Hotel

Wednesday, April 13

9:30 A.M. Post Convention Board Meeting
—State Room (1102)

Arts and Crafts Show

The Arts and Crafts Show will be in the State Room of the Andrew Jackson Hotel. It is sponsored by the Woman's Auxiliary to TSMA. Doctors and their wives are urged to participate in the exhibit.

Monday, April 11

1:00 P.M.-5:00 P.M. Arts and Craft Show
State Room, Andrew Jackson Hotel

Tuesday, April 12

9:30 A.M.-4:30 P.M. Arts and Craft Show
State Room, Andrew Jackson Hotel

5:00 P.M. Reclaim entries from Arts
and Craft Show

Board of Trustees Meeting

The TSMA Board of Trustees will meet in Parlor A and B of the Maxwell House at 9:00 A.M. on Wednesday, April 13.

Scientific Exhibits

Any scientific exhibits presented will be displayed on the Mezzanine floor of the Maxwell House.

Technical Exhibits

The exhibits are located on the Main Lobby and Mezzanine floor of the Maxwell House. They are open daily at 9:00 A.M. These exhibits display many educational features of the medical supply world of interest to doctors.

Public Health Council

The Public Health Council will meet in the Plantation Room of the Noel Hotel at 10:00 A.M. on Monday, April 11.

Tennessee Medical Foundation

A Dutch Breakfast will be conducted at 8:00 A.M. on Wednesday, April 13, in Parlor B and C of the Noel Hotel. A membership and business meeting will follow.

Technical Exhibits

Technical exhibits for the 1960 Annual Meeting will be housed on the mezzanine and main lobby floors of the Maxwell House. The newest developments in pharmaceuticals, equipment and services will be on display, with full information available through trained and experienced representatives.

Exhibits will be open daily from 9:00 A.M. to 5:00 P.M. All physicians will find their time well spent in visiting the exhibits and keeping abreast of what is new and useful. **Your attendance is Urged**, for your own benefit as well as for an expression of cooperation with our exhibitors.

ABBOTT LABORATORIES North Chicago, Illinois	Mezzanine Booth 20
A. S. ALOE COMPANY St. Louis, Missouri	Mezzanine Booth 39
BRAYTEN PHARMACEUTICAL COMPANY Chattanooga, Tennessee	Mezzanine Booth 15
CIBA PHARMACEUTICAL PRODUCTS, INC. Summitt, New Jersey	Main Lobby Booth 7
THE COCA-COLA COMPANY Atlanta, Georgia	Mezzanine Booth 16
DAIRY COUNCIL OF TENNESSEE Nashville, Tennessee	Mezzanine Booth 14
DE PUY MANUFACTURING COMPANY, INC. Warsaw, Indiana	Mezzanine Booth 36
DICK X-RAY COMPANY Knoxville, Tennessee	Mezzanine Booth 35
DOHO CHEMICAL CORPORATION New York City, New York	Mezzanine Booth 23
EATON LABORATORIES, INC. Norwich, New York	Main Lobby Booth 2
THOS. A. EDISON COMPANY Nashville, Tennessee	Main Lobby Booth 6
ELECTRIC BUSINESS MACHINES CO. Nashville, Tennessee	Mezzanine Booth 41
GEIGY PHARMACEUTICALS Yonkers, New York	Main Lobby Booth 8

GREAT BOOKS OF THE WESTERN WORLD Towson, Maryland	Mezzanine Booth 31	ROCHE LABORATORIES (Div. of Hoffman LaRoche, Inc.) Nutley, New Jersey	Mezzanine Booth 30
JULIUS SCHMID, INC. New York, New York	Mezzanine Booth 26	SCHERING CORPORATION Bloomfield, New Jersey	Main Lobby Booth 3
KNOLL PHARMACEUTICAL COMPANY Orange, New Jersey	Mezzanine Booth 17	G. D. SEARLE & COMPANY Chicago, Illinois	Main Lobby Booth 4
THE LANIER COMPANY Atlanta, Georgia	Main Lobby Booth 5	SMITH-REED-THOMPSON AND ELLIS COMPANY Nashville, Tennessee	Mezzanine Booth 18
LEDERLE LABORATORIES (Div. American Cyanamid Co.) Pearl River, New York	Mezzanine Booth 28	SOVEREIGN STATES INSURANCE COMPANY Nashville, Tennessee	Mezzanine Booth 43
ELI LILLY AND COMPANY Indianapolis, Indiana	Mezzanine Booth 33	STANDARD EQUIPMENT COMPANY Nashville, Tennessee	Mezzanine Booth 40
J. A. MOJORS COMPANY Dallas, Texas	Main Lobby Booth 11	THE STUART COMPANY Pasadena, California	Main Lobby Booth 1
S. E. MASSENGILL COMPANY Bristol, Tennessee	Mezzanine Booth 42	TENNESSEE GUILD OPTICIANS	Mezzanine Booth 19
MASSEY SURGICAL SUPPLY, INC. Nashville, Tennessee	Mezzanine Booth 24	THE UPJOHN COMPANY Kalamazoo, Michigan	Main Lobby Booth 10
MEAD JOHNSON & COMPANY Evansville, Indiana	Mezzanine Booth 21	VISIT THE EXHIBITORS The general scientific meetings will be recessed in mid-mornings for thirty minutes each day to give doctors an opportunity to visit the exhibitors. J. E. BALLENTINE Director of Exhibits	
MEDCO PRODUCTS COMPANY Tulsa, Oklahoma	Mezzanine Booth 22		
MERCK, SHARP & DOHME Philadelphia, Pennsylvania	Mezzanine Booth 32	<div>☆</div> <div> PROGRAM Sunday, April 10, 1960 1:00 P.M. (C.S.T.) House of Delegates, Ballroom Maxwell House—Nashville </div> <div>☆</div> <div> SPECIALTY SOCIETIES <div>☆</div> TENNESSEE STATE SOCIETY OF ANESTHESIOLOGISTS Sunday, April 10, 1960 Noel Hotel Parlor B and C 10:00 A.M. Business Meeting 12:00 Noon Luncheon 1:00 P.M. SCIENTIFIC PROGRAM Parlor B and C "ACTION OF NEUROMUSCULAR BLOCKING AGENTS ON HUMAN NORMAL AND MYO- THERIC MUSCLE IN VITRO" </div>	
MILEX PROFESSIONAL SPECIALITIES Peoria, Illinois	Mezzanine Booth 27		
MUTUAL BENEFIT LIFE INSURANCE CO. (Dunn-Lemly-Sizer) Nashville, Tennessee	Mezzanine Booth 25		
NASHVILLE SURGICAL SUPPLY COMPANY, INC. Nashville, Tennessee	Mezzanine Booth 29	<div>☆</div> <div> TENNESSEE STATE SOCIETY OF ANESTHESIOLOGISTS Sunday, April 10, 1960 Noel Hotel Parlor B and C 10:00 A.M. Business Meeting 12:00 Noon Luncheon 1:00 P.M. SCIENTIFIC PROGRAM Parlor B and C "ACTION OF NEUROMUSCULAR BLOCKING AGENTS ON HUMAN NORMAL AND MYO- THERIC MUSCLE IN VITRO" </div>	
PARKE, DAVIS & COMPANY Detroit, Michigan	Mezzanine Booth 13		
PEPSI-COLA BOTTLING CO. Nashville, Tennessee	Mezzanine Booth 34		
PFIZER LABORATORIES Brooklyn, New York	Mezzanine Booth 12	<div>☆</div> <div> TENNESSEE STATE SOCIETY OF ANESTHESIOLOGISTS Sunday, April 10, 1960 Noel Hotel Parlor B and C 10:00 A.M. Business Meeting 12:00 Noon Luncheon 1:00 P.M. SCIENTIFIC PROGRAM Parlor B and C "ACTION OF NEUROMUSCULAR BLOCKING AGENTS ON HUMAN NORMAL AND MYO- THERIC MUSCLE IN VITRO" </div>	
WM. P. POYTHRESS & COMPANY, INC. Richmond, Virginia	Mezzanine Booth 37		
THE PURDUE FREDERICK COMPANY New York City, New York	Mezzanine Booth 38		
A. H. ROBINS COMPANY, INC. Richmond, Virginia	Main Lobby Booth 9	<div>☆</div> <div> TENNESSEE STATE SOCIETY OF ANESTHESIOLOGISTS Sunday, April 10, 1960 Noel Hotel Parlor B and C 10:00 A.M. Business Meeting 12:00 Noon Luncheon 1:00 P.M. SCIENTIFIC PROGRAM Parlor B and C "ACTION OF NEUROMUSCULAR BLOCKING AGENTS ON HUMAN NORMAL AND MYO- THERIC MUSCLE IN VITRO" </div>	

By: JOHN B. DILLON, M.D., Professor of Anesthesiology at the University of California Medical Center, Los Angeles, California.



WOMAN'S AUXILIARY TO THE TENNESSEE STATE MEDICAL ASSOCIATION

APRIL 10-13, 1960

CONVENTION HEADQUARTERS
ANDREW JACKSON HOTEL

* * * * *

32nd Annual Convention

* * * * *

Sunday, April 10

2:00-4:00 P.M. Registration

Main Lobby, Andrew Jackson Hotel

Program

2:00-4:00 P.M. Entries accepted for Arts and Crafts Show in the State Room.

2:00-4:00 P.M. Special committee meetings—Awards, Revisions, Finance, will be conducted in the President's Suite, Andrew Jackson Hotel, Suite 1140.

Hostess Auxiliary

The Woman's Auxiliary of the Nashville Academy of Medicine and Davidson County Medical Society



Monday, April 11, 1960 SCIENTIFIC SESSIONS General Scientific Program

Ballroom Maxwell House

JOHN H. BURKHART, M.D., Knoxville,
Vice President, TSMA, presiding.

9:00 A.M.

Interesting and Unusual Small Bowel Lesions

By: DR. MARK FECHNER, Knoxville
Discussed by: DR. DOUGLAS H. RIDDELL, Nashville

9:30 A.M.

Treatment of Cancer by Radiation Alone

By: DR. CHARLES L. MARTIN, Clinical Professor of Radiology, Southwestern Medical School, University of Texas, Dallas, Texas

10:00 A.M.

Visit Exhibits

10:30 A.M.

Hiatus Hernia: Surgical Considerations

By: DR. WALTER W. FISCHER, Associate Professor of Clinical Surgery, New York University Medical School, New York, N. Y.

11:00 A.M.

PANEL: Common Diagnostic Problems in Chest Disease

Moderator: DR. THOMAS B. HALTOM, Nashville
DR. ROBERT P. BALL, Oak Ridge—
DR. WILLIAM E. DENMAN, Memphis
DR. WALTER W. FISCHER, New York City—
DR. SHELDON E. DOMM, Knoxville

SPECIALTY SOCIETIES

TENNESSEE ACADEMY OF GENERAL PRACTICE

MONDAY, APRIL 11, 1960

8:00 A.M.

Registration Main Lobby

SCIENTIFIC PROGRAM

(Category I Credit Approved)

Total 7 hrs., TAGP members

Maxwell House

Ballroom

12:30 P.M.

Congress of Delegates

1:00 P.M.

Presiding: E. L. CAUDILL, JR., M.D.

President, TAGP

PRACTICAL ASPECTS OF PSYCHIATRY

By: RICHARD C. PROCTOR, M.D., Department of Psychiatry, Bowman-Gray School of Medicine, Winston-Salem, North Carolina

BEHAVIOR PROBLEMS IN CHILDREN

By: PHILIPP C. SOTTONG, M.D., Chattanooga
Director of Research Guidance Clinic, Chattanooga

EMOTIONAL PROBLEMS COMMONLY ENCOUNTERED IN THE AGED

By: ROBERT A. DAVISON, M.D., Memphis
Professor, Department of General Practice, University of Tennessee School of Medicine, Memphis

EMOTIONS AND OVARIAN FAILURE

By: ROBERT M. FOOTE, M.D., Psychiatrist, Nashville



TENNESSEE RADIOLOGICAL SOCIETY

MONDAY, APRIL 11, 1960

Cumberland Room, Maxwell House

12:00 Noon

Luncheon—Cumberland Room

PROGRAM

1:00 P.M.

Business Meeting

Scientific Presentation:

Treatment of Cancer of the Head and Neck with Radiation

By: CHARLES L. MARTIN, M.D., Clinical Professor of Radiology, Southwestern Medical School, University of Texas, Dallas, Texas.

Following the address of Dr. Martin, there will be a film reading session. This will complete the program.

Film Reading

Participants will expertly diagnose films of proven cases to be submitted by members or guests. Cases to be submitted for diagnosis should be diagnostic problems and supported by films of good quality.



TENNESSEE ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

MONDAY, APRIL 11, 1960

Parlors B and C

Noel Hotel

12:15 P.M.

LUNCHEON with question and answer round table discussion.

SCIENTIFIC PROGRAM

2:00 P.M.

Meeting called to order

DR. J. THOMAS BRYAN, President

2:10 P.M.

Diagnostic Difficulty of Low Tension Glaucoma

DR. ALICE R. DEUTSCH, Memphis

2:35 P.M.

Contact Lenses

DR. WILLIAM F. MURRAH, JR., Memphis

3:00 P.M.

Tympanoplasty and Vein Graft Myringoplasty

DR. JOHN SHEA, JR., Memphis

3:25 P.M.

Case Report of Metastatic Carcinoma of the Eyelid.

DR. ALFRED N. COSTNER, Johnson City

3:45 P.M.

A-V Syndrome Associated with Esotropia and Exotropia

DR. RALPH S. HAMILTON, Memphis

4:10 P.M.

Simple Office Operation for Spastic Entropion

DR. FRED ROWE, Nashville

4:30 P.M.

Business Meeting

**TENNESSEE THORACIC SOCIETY**

MONDAY, APRIL 11, 1960

Old South Room—Maxwell House

12:15 to 1:30 P.M.

Luncheon and Business Meeting—Old South Room

SCIENTIFIC PROGRAM

1:30 P.M.

Respiratory Distress in Infancy—Surgical Implications

DR. WALTER W. FISCHER, New York, N.Y.

Panel Discussion—Atypical Non-Malignant Pulmonary Lesions

DRS. RUDOLPH KAMPMEIER, LLOYD H. RAMSEY, JOHN B. THOMISON AND ROBERT L. MCCracken, Nashville

Idiopathic Paralysis of the Diaphragm

DR. EARL BOWERMAN, Memphis

Present Status of Surgery for Coronary Artery Disease

DR. JESSE E. ADAMS, Chattanooga

The Practical Value of Bronchspirometry

DRS. SHELDON E. DOMM, DAVID H. WATERMAN AND WILLIAM K. ROGERS, Knoxville

**TENNESSEE SOCIETY OF PATHOLOGISTS**

MONDAY, APRIL 11, 1960

12:00 Noon

Dutch Treat Luncheon

Maxwell House

Parlor C-1

SCIENTIFIC PROGRAM

1:00 P.M.

ELGIN P. KINTNER, M.D., President, Tennessee Society of Pathologists, *Presiding*

1:00 P.M.

Electrophoresis of Glycoproteins and Related Proteins

EDWARD M. KELMAN, M.D., Maryville

1:15 P.M.

A Comparison of Biopsy and Surgical Conization in Carcinoma in Situ of the Cervix Uteri

JOHN B. THOMISON, M.D., Nashville, AND ROBERT H. TOSH, M.D., Clarksville

1:30 P.M.

Arteriosclerosis of Renal Artery, Preliminary Report

FORREST SCHARF, M.D. AND MERLIN L. TRUMBULL, M.D., Memphis

1:45 P.M.

Cobalt⁶⁰—labeled Vitamin B-12 Uptake in the Diagnosis of Pernicious Anemia

C. HAROLD STEFFEE, M.D., Oak Ridge

2:00 P.M.

The Pathologist, Unseen Member of the Medical Team

Intersociety Committee on Pathology Information

2:30 P.M.

Intermission

2:40 P.M.

Business Meeting

**WOMAN'S AUXILIARY TO THE TENNESSEE STATE MEDICAL ASSOCIATION**

MONDAY, APRIL 11, 1960

Andrew Jackson Hotel

Registration—Main Lobby—8:30 A.M.

Entries accepted for Arts and Crafts Show—State Room 9:30 A.M.—12 Noon.

PROGRAM

1:00-5:00 P.M.

Arts and Craft Show—State Room

9:30 A.M.-4:30 P.M.

Hospitality Room—Capitol Room, No. 1101

9:30 A.M.

Pre-Convention Board Meeting—Andrew Jackson Room

12:30 P.M.

Luncheon—Honoring past Presidents—Andrew Jackson Room

3:00 P.M.

Tea—Home of Governor and Mrs. Buford Ellington

6:00 P.M.

TSMA Social Hour—Maxwell House—Cumberland Room

7:00 P.M.

President's Banquet—Ballroom, Maxwell House

Tuesday, April 12, 1960

9:00 A.M.

House of Delegates, Old South Room

Maxwell House—Nashville

General Practice Day

General Scientific Program

9:00 A.M.-12:00 Noon

(Jointly presented in cooperation with the Tennessee Academy of General Practice)

Category I credit approved

Ballroom

Maxwell House

R. DAVID TAYLOR, M.D., Dyersburg, Vice President, TSMA, presiding

9:00 A.M.

Our Results with Griseo Fulvin in the Treatment of Fungus Infections

By: DRs. ROBERT BUCHANAN and JAMES R. HAMILTON, Nashville

Discussed by: DR. VONNIE A. HALL, Memphis

9:30 A.M.

Apnea Neonatorum

By: DR. HARRY PRYSTOWSKY, Professor of Obstetrics and Gynecology, University of Florida College of Medicine, Gainesville, Fla.

10:00 A.M.

Visit Exhibits

10:30 A.M.

Use and Abuse of Tranquilizers in Psychiatric Treatment

By: DR. RICHARD C. PROCTOR, Department of Psychiatry, Bowman-Gray School of Medicine, Winston-Salem, N.C.

11:00 A.M.

Panel: Emotional Problems Commonly Encountered in Office Practice

Moderator: DR. SPENCER Y. BELL, Knoxville
DR. HAMILTON FORD, Galveston, Texas, DR. WADE BOSWELL, Knoxville, DR. RICHARD C. PROCTOR, Winston-Salem, N. C., DR. ROBERT A. DAVISON, Memphis

SPECIALTY SOCIETIES

TENNESSEE CHAPTER AMERICAN COLLEGE OF SURGEONS

TUESDAY, APRIL 12, 1960

Ballroom—Maxwell House

WELCOME

The Tennessee Chapter, A.C.S. extends a cordial invitation to all physicians attending the TSMA meeting, to be the guests at the scientific sessions of the ACS on Tuesday, April 12. Residents, interns and students are especially welcome.

PROGRAM

HARWELL WILSON, M.D., Memphis, presiding

1:30 P.M.

First Prize Resident's Paper

2:00 P.M.

Severe Rectal Hemorrhage—Diagnosis and Treatment

DR. RUDOLPH NOER, Professor of Surgery, University of Louisville School of Medicine

2:30 P.M.

Recent Advances in Neurological Surgery: (1) Treatment on Aneurysms; (2) Surgical Treatment of Parkinson's Disease

DR. WILLIAM MEACHAM, Nashville

3:00 P.M.

Report on Current Investigative Projects in the Vanderbilt Department of Surgery

DR. WILLIAM SCOTT, Nashville

3:30 P.M.

Uses and Abuses of Urethral Catheters

DR. THOMAS NESBITT, Nashville

3:50 P.M.

Practical Methods of Reducing Surgical Infections

DR. JOHN FARRINGER, Nashville

4:15 P.M.

Business Meeting of Tennessee Chapter of American College of Surgeons

EVENING PROGRAM

Ballroom

Noel Hotel

6:30 P.M.

Social Hour

7:30 P.M.

Banquet (For members and wives)

Presiding: HARWELL WILSON, M.D.

Entertainment provided



TENNESSEE ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

TUESDAY, APRIL 12, 1960

Parlors B and C

Noel Hotel

12:15 P.M.

Luncheon with question and answer round table discussion.

SCIENTIFIC PROGRAM

2:00 P.M.

Meeting called to order

DR. J. THOMAS BRYAN, President

2:05 P.M.

Alpha-Chymotrypsin in Cataract Surgery—Followup Report

DR. PHIL LEWIS, DR. CLAUDE OGLESBY, DR. A. CHELJ, DR. JOE HARDIMAN, and DR. MELVIN DEWEESE, Memphis

2:45 P.M.

Case Report of Malignant Melanoma of the Iris

DR. GEORGE BOUNDS, Nashville

3:05 P.M.

Laryngeal Grafting, Following Traumatic Injury to Larynx

DR. HUEY PORTER, Memphis

3:25 P.M.

Symposium on Audiology

DR. W. W. WILKERSON, JR. and DR. WILLEFORD, Nashville

TENNESSEE STATE OBSTETRICAL AND GYNECOLOGICAL SOCIETY

TUESDAY, APRIL 12, 1960

Cumberland Room Maxwell House

GENERAL SCIENTIFIC MEETING

9:30 A.M.

(Ballroom)

Apnea Neonatorum

DR. HARRY PRYSTOWSKY, Professor of Obstetrics
and Gynecology, University of Florida College
of Medicine, Gainesville, Florida

Cumberland Room

12:00 Noon

Luncheon

1:00 P.M.

Scientific Program

A Trip Into Space

By: DR. HARRY PRYSTOWSKY, Guest Speaker

Some Aspects of Cervical Carcinoma

By: DR. HARRY JENKINS, Knoxville

Open Discussion: DR. EDWIN L. WILLIAMS,
Nashville

Suppression of Lactation by Single Dose Intra- partum Estrogen-Androgen Injection

By: DR. JACK TANNER, Chattanooga

Open Discussion: DR. SCOTT BAYER, Nashville

Treatment of Infected Abortion by Immediate Curettage

By: DRs. H. E. ATHERTON and JOHN KIRKLEY,
Memphis

Open Discussion: DR. ROY PARKER, Nashville

Detection of Intracavitary Bleeding by Examina- tion of Venous Blood

By: DR. ROGER BURRUS, Nashville



TENNESSEE ACADEMY OF PREVENTIVE MEDICINE AND PUBLIC HEALTH

Parlor C-1

Maxwell House

TUESDAY, APRIL 12, 1960

12:30 P.M.

Luncheon—Parlor C-1

1:30 P.M.

Scientific Program—Parlor C-1

ARTHUR J. VON WERSSOWETZ, M.D., President, pre-
siding

Medical and Public Health Aspects of Radiological Health

By: NORMAN TELLES, M.D., Robert A. Taft
Training and Research Center and a member
of the Training Staff, Radiological Health
Division, United States Public Health Service,
Cincinnati, Ohio.

Business Meeting



TENNESSEE DIABETES ASSOCIATION

TUESDAY, APRIL 12, 1960

Parlor A and B

Maxwell House

Scientific Program

2:00 P.M.

Prediabetes

By: ADDISON B. SCOVILLE, JR., M.D., Nashville

2:30 P.M.

Case Report—Easter Thrill

By: STANLEY KAPLAN, M.D., Memphis

3:00 P.M.

The Present Status of Glucagon

By: WILLIAM LAW, M.D., Knoxville

3:30 P.M.

Diabetic Neuropathy—Review and Suggestion for a New Approach

By: JEAN M. HAWKES, M.D., Memphis

4:00 P.M.

C. P. C.

4:30 P.M.

Business Meeting

6:00 P.M.

Cocktail Party and Banquet

Speaker: LEON SMELO, M.D., Birmingham, Ala-
bama

Subject: HYPERURICEMIA



TENNESSEE PSYCHIATRIC ASSOCIATION

TUESDAY, APRIL 12, 1960

Plantation Room

Noel Hotel

12:00-12:45 P.M.

Social Hour

12:45-1:45 P.M.

Luncheon

SCIENTIFIC PROGRAM

2:00-2:45 P.M.

Guides in Selection of Newer Psychopharma- cologic Agents

By: DR. HAMILTON FORD, Titus Harris, Clinic of
Neurology and Psychiatry, John Sealy Hospi-
tal, Galveston, Texas

2:45-3:00 P.M.

Voluntary Insurance Plans for the Psychiatric Patient

By: DR. FRANK LUTON, Nashville

3:00-3:15 P.M.

Outpatient Treatment of Childhood Schizophrenic Patients

By: DR. H. JAMES CRECRAFT, Nashville

3:15-3:30 P.M.

Developing a Clinical Concept of Suicide

By: DR. JOHN E. CARLTON, Nashville

3:30-4:00 P.M.

Discussion Period

4:00-5:00 P.M.

Business Meeting

7:00 P.M.

Dinner for members and wives at the Belle Meade
Country Club. Those attending will be the
guests of Dr. O. S. Hauk.

WOMAN'S AUXILIARY TO THE TENNESSEE STATE MEDICAL ASSOCIATION

TUESDAY, APRIL 12, 1960

Andrew Jackson Hotel
PROGRAM

9:30 A.M.

Arts and Crafts Show—State Room

Hospitality Room—Capitol Room, 1101

9:30 A.M.

General Session—32nd Annual Convention
Call to order—MRS. WILLIAM A. GARROTT, President

Introduction of MRS. FRANK GASTINEAU, President,
Woman's Auxiliary, American Medical Association

Introduction of MRS. JOHN M. CHENAULT, President,
Woman's Auxiliary, Southern Medical Association

Report of County Presidents, MRS. RICHARD HOFFMEISTER, Moderator

Presentation of Health Project Winners

12:30 P.M.

Annual Luncheon—Ballroom, Andrew Jackson
Hotel, MRS. FRANK GASTINEAU, Guest Speaker

Presentation of Awards

Installation of Officers

Presentation of President's Pin and Gavel

5:00 P.M.

Collect Articles from Arts and Crafts Show



Wednesday, April 13, 1960

General Scientific Program

Ballroom Maxwell House

JAMES M. KING, M.D., Tullahoma, Vice President,
TSMA, presiding

9:00 A.M.

Abdominal Epilepsy

By: DR. W. DAVID DUNAVANT, Memphis

Discussed by: DR. J. L. FARRINGER, JR., Nashville

9:30 A.M.

The Management of Blunt Abdominal Trauma

By: DR. RUDOLPH NOER, Professor of Surgery,
University of Louisville School of Medicine,
Louisville, Ky.

10:00 A.M.

Visit Exhibits

10:30 A.M.

Responsibility of Physicians in the Treatment and Referral of Psychiatric Patients

By: DR. HAMILTON FORD, Titus-Harris Clinic of
Neurology and Psychiatry, John Sealy Hospital,
Galveston, Texas

11:00 A.M.

Symposium—Panel: Antibiotics—When and Why!

Moderator: DR. I. FRANK TULLIS, Memphis

DR. SHELDON KORONES, Memphis

DR. DAVID ROGERS, Nashville

DR. MARK FECHNER, Knoxville

SPECIALTY SOCIETIES

TENNESSEE MEDICAL FOUNDATION

WEDNESDAY, APRIL 13, 1960

Parlor B and C

Noel Hotel

3:00 A.M.

Dutch Breakfast

8:45 A.M.

Membership Business Meeting—Parlor B and C
Reports and Elections



WOMAN'S AUXILIARY TO THE TENNESSEE STATE MEDICAL ASSOCIATION

WEDNESDAY, APRIL 13, 1960

Andrew Jackson Hotel

State Room (1102)

9:00 A.M.

Post-Convention Board Meeting—State Room 1102

MRS. ROBERT L. AKIN, presiding

(Continental breakfast will be served)



The Psychiatric Patient

(Continued from page 109)

the family doctor in the lesser psychiatric problems, recognizing that it may be many decades before trained psychiatrists can meet the great demands on their time and limited numbers. Psychiatric diagnosis and treatment in the general hospital would go a long way in teaching all doctors untrained in psychiatry, the principles of psychiatric care. (The National Institute for Mental Health recognizes the need for this. The Institute has funds for the financial support of qualified psychiatric units in general hospitals even if not affiliated with a university of teaching hospital.)

Last but not least, all of medicine has suffered, as has the patient, by the denial of daily professional intercourse between psychiatrist and non-psychiatrist in the medical setting of the general hospital. Consultation and mutual understanding can be facilitated only under such circumstances. The psychiatrist has been separated from his colleagues for too long.

The Editor hazards a guess that the next decade will witness another forward step in the management of mental disease in the general hospital and psychiatrists taking a

place on the active staff of such hospitals. It is merely a matter of time until this step will appear logical in an increasing number of hospitals.

R. H. K.

DEATHS

Dr. Charles F. Webb, 72, Jackson, died January 31st at a Jackson hospital. He was one of the founders of the Webb-Williamson Hospital in Jackson.

Dr. Orman H. Atkins, 75, Erin, died January 28th at his home.

Dr. Vincent M. Small, 44, Gallatin, died January 26th at Vanderbilt University Hospital in Nashville.

Dr. John E. Kite, 46, Bulls Gap, died January 30th in a Greeneville hospital.

Dr. G. W. Stone, 70, Knoxville, died January 24th in Fort Sanders Presbyterian Hospital.

Dr. Hollis Clay Evans, 56, New Tazewell, died February 10th at St. Mary's Hospital in Knoxville.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Sullivan-Johnson County Medical Society

Approximately 100 doctors and lawyers heard a discussion of medical ethics and medical legislation at the meeting of the Society on February 11 at Scoby's Restaurant in Kingsport. Speakers on the program were: Dr. Harmon L. Monroe, Erwin, president of the Tennessee State Medical Association; Dr. Carroll H. Long, Johnson City, chairman of the Council of TSMA; and Mr. Jack Drake, Public Service Director of TSMA.

Greene County Medical Society

The Society met for its regular meeting on February 2nd at the Elks Club in Greeneville. Dr. Ben Keebler, vice-president, presided at the meeting. Guest speakers were Dr. Harmon L. Monroe, Erwin, president of the Tennessee State Medical Association and Dr. Carroll H. Long, Johnson City, chairman of the Council of TSMA. The speakers discussed medical ethics.

A business meeting of the society followed the scientific presentation. It was

recommended that members of the Society write letters to Senator Albert Gore urging support of HR 10, a bill that allows self-employed persons to set aside certain tax exempt amounts for retirement purposes. All members were requested to forward a resolution to their Congressmen urging opposition to the Forand Bill (H.R. 4700).

Chattanooga-Hamilton County Medical Society

The January 28th meeting of the Society was arranged by the Chattanooga Area Heart Association, and an annual heart symposium was presented. Grand rounds were conducted at Erlanger Hospital and a Banquet was held in the evening at Chattanooga Golf & Country Club.

At the February 2nd meeting of the Society, members heard an address by Dr. Stewart Lawwill, Jr. on the subject "Glaucoma in General Practice." Dr. W. H. Stoneburner spoke on the subject "Enzymes in Medicine" and a case report was presented by Dr. Cecil Newell.

Nashville Academy of Medicine and Davidson County Medical Society

The Society met on the evening of March 8th at Vanderbilt University Hospital where the meeting was preceded by a dinner in the cafeteria. The program consisted of an address by Dr. John Davis Hughes, Memphis, former president of the Memphis-Shelby County Medical Society. Dr. Hughes' subject was "Prepaid Medical Insurance: Use and Abuse." Supplementing Dr. Hughes' presentation was Dr. Carl Gessler, Chairman of TSMA's Consultative Committee on Administration of Voluntary Prepaid Medical Care Plans.

Consolidated Medical Assembly

The Society held its regular monthly session on the evening of February 2nd at the New Southern Hotel in Jackson. Dr. George Pakis, Jr. presented a paper on "Ovarian Carcinoma" which was discussed by Dr. Swan Burrus, Jr. "Hermaphroditism" was the topic of the paper by Dr. Clarence Driver with discussion by Dr. C. C. Stauffer. All participants in the program were from Jackson.

Northwest Tennessee Academy of Medicine

The Society met on January 25th at the Dyersburg Country Club. A number of the members heard Dr. Gwinn Robbins, Memphis, discuss unusual chest diseases and Dr. Pervis Milnor, Memphis, speak on antibiotics.

It was announced that the next meeting would be held on February 23rd at Boyette's Dining Room on Reelfoot Lake.

Roane County Medical Society

The monthly meeting of the Society was held on February 23rd at Oak Terrace. A social hour and dinner preceded the meeting. The scientific program consisted of a panel on Coronary Artery Disease presented by the East Tennessee Heart Association. Dr. John Avera, Knoxville, spoke on the subject "Alterations in Lipid Metabolism and Methods of Management." Dr. Freeman Rawson, Knoxville, spoke on the subject "Long Term Anticoagulant Therapy Rationale and Complications." Dr. Frank London, Knoxville, spoke to the Society on "Symptomatic Therapy for Pain Control."

Anderson-Campbell County Medical Society

The Society held its dinner meeting on the evening of January 28th at the Russell Hotel in LaFollette. The guest speaker for the evening was Dr. Herbert F. White of Knoxville. Dr. White's subject was "Electro-Cardiography."

tion to their Congressmen. Pressure behind such legislation began to build up early in February. The Eisenhower Administration announced it was working on three possible programs for providing health care for aged persons in cases of catastrophic—lengthy and costly—illness.

Without amplification, President Eisenhower told a news conference that there was under consideration "a possible change" in the Social Security Act "to run up the taxes by a quarter of a per cent to . . . make greater provision for the care of the aged." The President's statement that "there has been no conclusion reached in the administration" was backed up by Arthur S. Flemming, Secretary of Health, Education and Welfare, in a clarifying announcement.

Flemming said his department was working on two other approaches to what he called a serious problem in addition to the possible revision of the Social Security law mentioned by Mr. Eisenhower. The HEW Secretary said consideration also was being given to: (1) stepped-up Federal assistance under the Federal-state public assistance program, and (2) the Federal government supplementing voluntary insurance programs.

Flemming again expressed opposition to the Forand bill which would increase Social Security taxes by one quarter of one per cent each on employers and employees to provide hospitalization, surgical benefits and nursing home care for Social Security beneficiaries. The Secretary said he wanted to "underline that the position of the administration is opposition to the Forand Bill."

Flemming said he hoped to have an administration bill ready to submit in early April to the House Ways and Means Committee where the Forand Bill is pending. The Committee is scheduled to take up in late March or early April proposed changes to the Social Security Act.

Proponents of the Forand bill—which is vigorously opposed by the American Medical Association and allied groups—were pointing their campaign toward securing the House Committee's approval of the legislation at that time.

NATIONAL NEWS

The Month in Washington (From the AMA Washington Office)

Congress appears headed for a showdown this session on legislation for the Federal government to provide medical care for aged persons. The medical profession and allied groups stepped up their activities in opposition to such legislation as indications mounted that the issue was approaching a crucial stage. Several State Medical Societies planned to send delegations to Washington to personally express their opposi-

The AFL-CIO, a main supporter of the Forand bill, urged labor union members to write to congressmen on the Committee urging them to vote for it. The AFL-CIO also distributed a pamphlet quoting a handful of physicians as supporting the legislation. But the labor organization didn't mention that the overwhelming majority of doctors oppose it.

The Senate Subcommittee on Problems of the Aged and Aging, headed by Sen. Pat McNamara (D., Mich.), issued on behalf of its Democratic majority a report stating that use of the Social Security program "is the most efficient procedure for providing" health care for older persons. The AMA and the Subcommittee's Republican minority promptly disputed this conclusion. The AMA statement issued in Chicago said: "The American Medical Association today sharply disagreed with the recommendation of the McNamara subcommittee regarding government medicine for Social Security beneficiaries."

"Dr. Louis M. Orr, Orlando, Florida, President of the AMA, said: "This is a politically inspired committee. Senator McNamara, Democrat from Michigan, has long supported political medicine. The fact is that at the seven subcommittee hearings held throughout the United States, observers heard little support expressed by the older citizens who attended the hearings for government medicine financed by additional taxes and administered through Social Security."

The Republican minority stated that testimony before the Subcommittee "proves that it is possible for elderly people to secure private insurance to provide hospitalization and surgical benefits without any intervention by public authorities."

Sen. John F. Kennedy (D., Mass.), a leading contender for the Democratic nomination for President, introduced legislation similar to the controversial Forand bill but broader in scope. The Kennedy bill would eliminate surgical benefits but would add diagnostic outpatient and home nursing services.

Social Security Expansion An Election Issue

In a crucial election year, it appears that

expansion of the Social Security program will be a major issue. It is almost a sure thing that some liberalization of the program will be voted and about the only question involved is how far the changes will go. In recent years of a presidential election, the House and Senate have approved a broadening of the program.

A prime reason why social security has been an election year "favorite" is that the program can be broadened without affecting the federal budget. This is because it is financed through employer-employee contributions and is supposed to be self-supporting.

Of special interest to physicians, is the fate of the Forand Bill (H.R. 4700) that would provide hospitalization, surgical services, and nursing home care for Social Security beneficiaries. Senator Pat McNamara, (D., Mich.), whose senate subcommittee on aging held a series of hearings across the country during the recess, has announced that the committee hearings showed a need for expanding social security to include health care for the aged.

Dr. Edward L. Turner

The American Medical Association lost by death the director of the Division of Scientific Activities.

Dr. Turner died suddenly on February 4, at the age of 59, and is being recognized in the Journal of the Tennessee State Medical Association because of his membership for some 8 or 9 years in the Nashville Academy of Medicine and the Tennessee State Medical Association, and for the contributions he made to medical education in Tennessee. Many of the physicians in Nashville will remember Dr. Turner as President and Professor of Medicine at Meharry Medical College, a position he assumed on returning to this country following some years on the faculty of the American University of Beirut, Beirut, Lebanon. After he left Tennessee Dr. Turner organized the Washington School of Medicine at Seattle, an entirely new medical school, and was its dean for a number of years. From this position he went to the American Medical Association, where for six years he was secretary of its Council on Medical Education and Hospi-

tals, and just last year became the Director of the A.M.A.'s Division of Scientific Activities.

It was a coincidence that Dr. Turner should have died just the day before the 56th Annual Congress on Medical Education and Licensure, which is sponsored by the A.M.A. annually and under the direct planning of the Council on Medical Education and Hospitals. This coincidence permitted many of the officers of the American Medical Association, deans of medical schools, and other educators as well as members of licensing boards, who were attending the Congress, to honor Dr. Turner in his last rites at a Memorial Service in the Chicago suburb of his home. The ushers were members of the Council on Medical Education and Hospitals.

In his remarks Dr. Walter Wiggins, Secretary of the Council on Medical Education and Hospitals, could speak feelingly of his years of work with Dr. Turner, when he was his assistant.

"Perhaps foremost of our lessons was an appreciation that such learning as we have is, at best, but little compared to that of which we are ignorant. All students of Dr. Turner have reason to know of his contempt for deception of any sort, but above all for self-deception. This was accompanied by the abiding need for truth. . . .

"We have learned gradually the deepness and richness of thought in what he termed the eternal changelessness of change. His wisdom accepted the constant change of the old order yielding place to the new as an everlasting challenge to the intelligent mind. Not for him the futility of fighting change nor the disaster of drifting with it. This wise teacher nurtured change for himself and his pupils as the vital food which provides adventure for man's intellect. The first rate man seeks to understand what is happening in the World and to bend his every effort so that change will most often be synonymous with progress. . . .

"... and the primary obligation of a medical school and the faculty must be directed to the education of the student. He has always recognized the importance of research to student and to faculty alike and has looked on imaginative curiosity in both as the architect of medicine's future. However, he was disturbed early that faculties too often allowed their research to assume primary significance at the expense of teaching. It is heartening to note that other thoughtful medical educators realize that this view must prevail, if, over the long run, medical knowledge is to progress to its fullest potential period. . . .

"Dr. Turner's judgment of men and ideas were deliberate and well considered. His determined

belief in the dignity of the individual embraced a remarkable tolerance. In his many dealings with different problems, his success has been due in part to a conviction that, regardless of differing viewpoints, men of good will can find solutions through considering their problems thoughtfully together. And no man of good will has ever had cause to doubt the righteousness of this conviction."

As a colleague and one who had worked intimately with Dr. Turner in medical education, Dr. Ward Darley, Director of the Association of American Medical Colleges also paid tribute to Ed Turner at the Memorial Service. He opened his remarks as follows:

"Because of his ability to combine knowledge and experience, Dr. Edward Turner was exceptional in his formulation of reliable judgments. He was also exceptionally sensitive to human need in opportunities for service. The illumination of these qualities by an insatiable curiosity, by the ability to communicate and inspire, by imagination and courage, and by humility and compassion, made him at once a scholar, teacher, leader and servant. . . .

"Dr. Turner's career has contributed mightily to progress in the teaching of medicine—not only in the nations' schools of medicine but in its hospitals as well. His intimate knowledge of the schools and hospitals as well as of their faculties and staff and the care and honesty with which he has used this knowledge—always realistic and practical, never compromising principle nor excellence—has won him the position of signal respect and effectiveness.

"And in these days, when medical science, practice and education are undergoing radical and rapid change, leadership with *his* kind of effectiveness is sorely needed. . . .

"Those of us who, over the years have shared in Dr. Turner's dreams and accomplishments and also who have become accustomed to the clasp of his hand, the pressure of his shoulder and the counsel in his voice, will know whereof I speak when I say that Dr. Turner's place in medicine has come to be unique and one that will always go unfilled."

MEDICAL NEWS IN TENNESSEE

Recent Changes in Medicare

Effective on January 1, 1960, changes occurred in the Medicare program, reinstating payments for a number of services that had been cut back on October 1, 1958. The following is a summary in broad terms of the present program:

1. Certain surgery (detailed below).
2. Acute emotional disorders constituting an emergency. (Limited to 21 days in hospital.)
3. Pre and post hospital diagnostic tests and procedures (not to include office exams or visits).
4. Treatment of injuries outside the hospital or as out-patient.

More specifically, the rules effective on January 1, 1960 provide the following:

1. *Medicare Permit (DD Form 1251)*. Dependents *residing apart from sponsor* may continue to select either uniformed services medical facilities or civilian medical facilities without this Permit. Dependents *residing with sponsor* will continue to be required to use service facilities if available and adequate. If service facilities are not available, the Permit must be provided the physician by the sponsor and must be submitted by him with the Medicare claim Form.
2. Surgery will now be covered if performed during hospitalization according to the following further clarification. *Still excluded from coverage are:*
 - a. Cosmetic surgery or any reconstructive surgery done for psychological rather than medical reasons,
 - b. Sterilizations because of multiparity or socio-economic reasons,
 - c. Operations to correct a state of infertility or sterility,
 - d. Removal of tattoos,
 - e. Correction of congenital or skeletal and/or central nervous system conditions identifiable as chronic long term conditions.

Coverage is now available for surgery done for:

- a. Improvement or restoration of hearing, sight, or respiratory function,
- b. Initial repair of harelip and/or cleft palate to include further stages planned on initial operation, but not to include subsequent revisions,
- c. Skeletal defects such as club foot and dislocated hip when surgery is done while patient is a *hospital in-patient* and to *improve function*,
- d. Surgical removal or repair of supernumerary digits, syndactylism, scars, nevi, hemangiomas, telangiectatic lesions, plantar warts, verrucae, sebaceous cysts, condylomata or moles when the conditions either impair function, show clinical evidence of malignancy, are ulcerated or bleeding or cause pain,
- e. Tubal ligation or other sterilization procedures when charge and consulting physician agree it is necessary for proper medical management of an otherwise unrelated medical or surgical condition for which benefits are authorized.

3. Benefits for treatment of injuries when a patient is not hospitalized are now available

- but limited to fractures, dislocations, lacerations and other wounds. A maximum of \$75.00 is authorized in such cases for necessary laboratory, pathology and radiology exams (not to include psychological, or intelligence tests). The first \$15.00 of cost in such cases shall be the patient's responsibility.
4. Restored to the program is payment of maximum of \$75.00 preceding *hospitalization* and a maximum of \$50.00 following *hospitalization* for *injuries or surgery* for diagnostic tests and procedures performed or authorized by the attending physician, so long as they are necessary to the treatment of the injuries or surgery for which hospitalized.
5. Also restored is care for acute emotional disorders constituting an emergency threatening the patient's life or health if one of the following conditions is met:
 - a. It is associated as a complication of maternity,
 - b. It is emergency care until disorder subsides, care can be arranged by the sponsor on another basis or the Medicare maximum of 21 days benefits have been used up,
 - c. It is care for nervous, mental, or emotional disorder requiring extension of a hospitalization for another condition covered by Medicare.

Extension of care beyond 21 days can be available, subject to approval by Washington, in cases where the sponsor's absence (e.g. overseas) make it impossible for him to arrange other care within 21 days, and no competent member of the service member's household is available in his absence. Request for such extension must be made by the service member or a representative and must be supported by the attending physician's statement that the requested extension is for the *Acute phase* of the disorder.

6. Permits are still required when a spouse or dependent is living with the sponsor and is to receive care from civilian sources. A permit attached to the attending physician's report will suffice for the anesthesiology, consultation, assistant, or other reports in connection with the same service, but these reports must *state* that permit was furnished to the attending physician. A permit may be waived in case of a "bona fide acute emergency" so certified by the attending physician, or when a patient is away from his sponsor's home area on a trip.
7. Whenever a doctor submits a claim affected by the preceding rules, he must certify as to status on the claim form or by letter (e.g., "This is a bona fide acute emergency," or "This care was required for improvement of function, or for relief of severe pain, or because there was clinical evidence of malignancy," or "This was an acute emotional disorder of emergency nature requiring hos-

pitalization for the protection of patient's life and/or health").

8. Patients already hospitalized on 1-1-60 for a condition for which benefits are restored effective on that date will be entitled to coverage for the *current uninterrupted period* of hospitalization. This will also include related diagnostic tests which would be payable if rendered after January 1, 1960.
9. Non-hospitalized patients still receiving continuous care on 1-1-60 for an injury which occurred after 12-1-59 will be authorized care from the date of commencement of care, including the \$75.00 maximum allowance for diagnostic tests, etc.

John Sevier Chapter—American Academy of General Practice

The regular monthly meeting of the John Sevier Chapter of the American Academy of General Practice was held in the Franklin Club in Elizabethton on January 21st. Dr. Thomas Ellis, Johnson City, was the featured speaker and discussed "Lumbar Disc Syndrome."

Dedication of Hospital at Oak Ridge

The dedication of the new \$2,900,000 Oak Ridge Hospital took place on February 13th. Dr. William F. Blackard, Clinton District Superintendent of the Holston Methodist Conference, and Dr. Charles W. Shilling, Deputy Director of the AEC Division of Biology and Medicine, were the key speakers.

University of Tennessee College of Medicine

The College had the fourth largest enrollment of any large medical school in the nation during the 1958-1959 school year. The 59th annual report on medical education, issued by the Council on Medical Education and Hospitals of the AMA, shows 658 students at the UT Medical College in Memphis. Medical student enrollment at the University of Michigan, University of Illinois, and the Jefferson Medical College in Philadelphia, were the only ones exceeding UT.



The federal government has made a grant of \$23,725.00 to permit continuation of long-range studies into the cause of hereditary anemia. Dr. Amoz I. Chernoff received the grant from the Department of Health, Education and Welfare. He is a specialist in

the study of blood diseases at the UT Memorial Research Center in Knoxville.



A \$15,000 grant for the training of graduate and postdoctoral students in microbiology research has been announced by the National Institutes of Health. Dr. J. P. Quigley will be in charge of the training program.

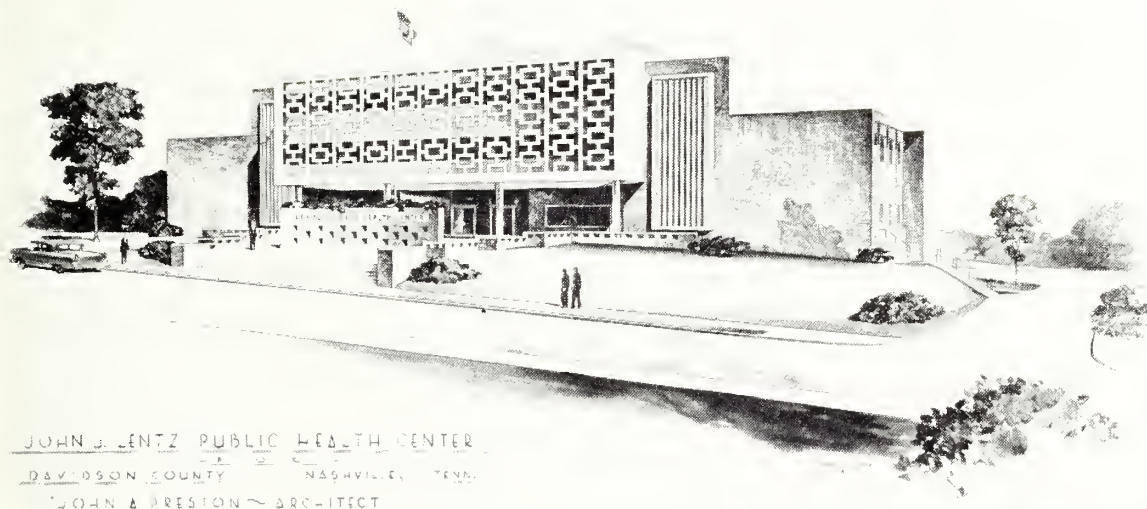
Meharry Medical College

Dr. Horace Goldie, professor of surgery and director of Meharry's Cancer Research program has received a \$10,000 grant from the Damon Runyon Memorial fund for cancer research. The grant will be used in connection with a project utilizing funds from the Atomic Energy commission and the National Institute of Health. The philosophy of the project, Dr. Goldie stated, is that the most important phase of cancer treatment is not removal of a malignancy, but the prevention of the spread of malignancy.

Dedication Lentz Public Health Center

The John J. Lentz Public Health Center of the Davidson County Health Department was dedicated on Thursday, February 11, thereby honoring Dr. John J. Lentz who has been the Director of the Health Department for more than forty years.

Dr. W. O. Vaughan, Nashville, and member of the Davidson County Board of Health, presided. After the invocation by Dr. A. L. Currie, Mr. L. J. Jennings spoke for the Governor of Tennessee, Honorable Buford Ellington, who was unable to attend the dedication. Dr. R. H. Hutcheson, Commissioner of Public Health of the State of Tennessee, described Dr. Lentz' contributions to public health in Davidson County and in Middle Tennessee. The Honorable Beverly Briley, County Judge, after recounting the long dream of Dr. Lentz for the development of a health center recounted the train of events that led to the building and now its final dedication. Mr. Joe Torrance, director of Finance, represented Mayor Ben West of Nashville in honor of the dedication. Congressman Honorable J. Carlton Loser, a friend of Dr. Lentz over the many years, paid tribute to Dr. Lentz as a friend, physician, and health officer.



The guest speaker was Dr. William W. Frye, formerly a student and subsequently professor of preventive medicine at Vanderbilt University School of Medicine and now Dean of the Medical School at Louisiana State University, as well as vice-president of the University. During his years on the Vanderbilt faculty, Dr. Frye was closely associated with Dr. Lentz in varied activities of the Davidson County Public Health Department. Dr. Frye reviewed the history of public health and preventive medicine as it evolved on a world wide stage during the eighty years of existence of the Davidson County Health Department. He intertwined Dr. Lentz' life with this historical background and the application of advances in preventive medicine which Dr. Lentz has applied as new methods evolved during his more than forty years of tenure as the health officer of Davidson County.

Finally, Dr. Lentz responded to the remarks of the speakers and affirmed his intentions to work for the continued betterment of health in Davidson County, the sole objective of a life time of medical interest.

PERSONAL NEWS

Elected officers for 1960 of the Memphis Society of Clinical Hypnosis were: **Dr. Victor Hirshman**,

president; **Dr. Roger Hickman**, vice-president; and **Dr. Marion Moore**, secretary-treasurer. All are from Memphis.

Dr. George B. Wyatt and **Dr. Duval H. Koonce**, Jackson, announce the removal of their office to The Doctors Clinic in Jackson.

Dr. John J. Killeffer, Chattanooga, announces the removal of his office to the Killeffer Orthopaedic Building, 700 Dodds Avenue.

Dr. George D. Dodson, Jr., Jackson, announces the removal of his office to The Doctors Clinic Building in Jackson.

Dr. W. L. Williamson, Memphis, has been named emeritus professor of gynecology at the UT College of Medicine. Dr. Williamson was professor and chairman of the department of gynecology from 1938 to 1943. He is a past-president of TSMA.

Dr. John J. Lentz, Nashville, Public Health Director for Davidson County, was recently honored at the time of the dedication of the new John J. Lentz Public Health Center.

Dr. David S. Carroll, Memphis, has been elected a member of the Board of Chancellors of the American College of Radiology.

Dr. Robert B. Gilbertson, Knoxville, recently addressed the Knoxville area, American Diabetes Association. His subject was "Differential Diagnosis of Hypoglycemia."

Dr. Eugene Ryan, South Pittsburg, recently addressed the Richard City PTA. He spoke on the subject "Accident Prevention."

Dr. Clarence B. Landham, Chattanooga, recently addressed the Marion County Council for Mentally Retarded Children.

"Diagnosis, Treatment and Prevention of Heart Disease" was the topic discussed by **Dr. John H.**

Burkhart, Knoxville, before the Northside Kiwanis Club.

Dr. Jack Smith, Jamestown, has been elected chief of staff of the Fentress County General Hospital.

Dr. H. L. Monroe, Erwin, and **Dr. Carroll H. Long**, Johnson City, recently addressed a meeting of the Sullivan-Johnson County Medical Society.

Dr. P. J. Sparer, Memphis, has been appointed chairman of the international committee on psychosomatic aspects of chest diseases of the College of Chest Physicians.

Dr. Don L. Eyler, Nashville, has been named secretary-treasurer of the American Society for Surgery of the Hand.

Dr. Dexter L. Woods, Jr., Waynesboro, has been honored by the Jaycees by being chosen as the most "Outstanding Young Man of 1959."

Dr. Wendell W. Wilson, Old Hickory, recently addressed the Old Hickory Chamber of Commerce.

Dr. Huey Thomas Holt has become associated with **Dr. W. I. Thornton** and **Dr. Thomas Johnson** in the practice of general medicine at Dyersburg.

Dr. O. Merritt has announced the opening of his office for the practice of medicine at Dandridge.

Dr. Julian C. Lentz, Maryville, recently spoke before the Maryville-Alcoa Civitan Club.

The new president of the medical staff at Methodist Hospital, Memphis, is **Dr. Carey G. Bringle**, Memphis. He succeeds **Dr. Moore Moore, Jr.** Named vice-president was **Dr. Jean M. Hawkes**, and re-elected secretary was **Dr. Joseph A. Roehchild**. All are from Memphis.

Four Davidson County surgeons recently participated in the Clinical Congress of Abdominal Surgeons at Miami Beach, Florida. They were: **Drs. Cleo M. Miller**, **Daugh W. Smith**, **Oscar F. Noel** of Nashville and **Dr. Roy R. Bowes** of Goodlettsville.

New officers of the Wilson County Medical Society are **Dr. Sam B. McFarland**, president; **Dr. R. C. Kash**, vice-president and **Dr. T. R. Puryear**, secretary. All are from Lebanon.

Ten physicians recently inducted in the membership of the Knoxville Academy of Medicine were: **Drs. Dan F. Beals**, **Joe C. Crumley**, **George E. Fillmore**, **Ted F. Haase**, **O. L. Merritt**, **Travis E. Morgan**, **Ben C. Ogle**, **C. Gerald Peagler**, **Emmett J. Thorpe** and **O. Horace Yarberr**.

Dr. James A. Robinson, Memphis, recently addressed the Tennessee Licensed Practical Nurses Association of Shelby County.

Dr. Carl Hartung, Chattanooga, spoke before the Chattanooga Kiwanis Club on the controversial Forand bill.

Dr. William M. Doak has joined the Donelson Clinic in association with **Dr. Luther Beazley** and **Dr. Wm. B. Wadlington**.

Dr. Hugh Smith, Memphis, has been installed as president of the American Academy of Orthopaedic Surgeons.

Dr. Keim L. Baird, Dyersburg, has announced

his association with **Dr. J. Paul Baird** in the practice of medicine in Dyersburg.

Dr. Fred D. Lansford, Jr., Chattanooga, announces the removal of his offices to 106 Professional Building where he will be associated with **Dr. Louis Ulin** in the practice of medicine and surgery.

Dr. Jesse Hill, Knoxville, recently spoke on the subject "Progress of Medicine in East Tennessee in the Past 50 Years" before the Woman's Auxiliary to the Knoxville Academy of Medicine.

Dr. Robert F. Ackerman, Memphis, recently addressed the Fellow Workers Luncheon Club. His subject was "The Heart Attack."

Dr. Laurence A. Grossman, Nashville, has been appointed a member of the Tennessee Board of Nursing. **Dr. Carroll H. Long**, Johnson City, was reappointed to a three-year term on the Board.

Dr. R. B. Wood, Knoxville, spoke on the subject "Your Heart and Mine" at the Knoxville Optimist Club.

Dr. Robert M. Finks, Nashville, has been named Chairman of the Board of Directors of the Nashville Academy of Medicine.

Dr. James Proffitt, Maryville, recently addressed the Maryville-Alcoa Kiwanis Club.

Dr. Anne Bolner, Fayetteville, announces the opening of her office for the practice of medicine.

Dr. Joseph L. Zueckermann, Chattanooga, recently spoke on the subject "Heart Disease in Children" over a Chattanooga TV station.

Dr. Herbert Duncan, Nashville, announces the removal of his office to the Mid-State Medical Center with practice limited to otolaryngology and ophthalmology.

Dr. Clarence Driver has joined **Dr. Oliver H. Graves**, Jackson, in the Doctors Clinic with practice limited to urology.

Dr. Frank G. Witherspoon, Nashville, announces the removal of his office to the Mid-State Medical Center.

Sponsored by the *Nashville Banner* and American Cancer Society of Nashville "Save A Life" programs on cancer for women were put on at a number of movie theaters in Nashville during the week of February 22. Upon each occasion two films were shown—one on "Breast Self Examination," the other "Time and Two Women." **Doctors Jefferson C. Pennington, Jr.**, **George B. Crafton**, **George W. Holcomb, Jr.**, **Houston Sar-ratt**, **Oscar F. Noel**, **C. Gordon Peerman, Jr.**, **Edmund W. Benz**, **B. K. Hibbitts, III**, and **G. J. Tarleton, Jr.**, of Nashville, were speakers, each at one showing of the films.

ANNOUNCEMENTS

Fifty-Year Club

Dr. J. H. McCurry, of Cash, Arkansas, advises that he has the approval of the American Medical Association to organize a Fifty Year Club within the AMA. **Dr. McCurry** is anxious to hear

from physicians who have been in practice fifty years or more who desire to become members of this club, giving their name and a complete address. The first meeting is to be held in Washington, D. C., at the Clinical meeting November 29 to December 2, 1960.

The West Virginia Academy of Ophthalmology and Otolaryngology

The program of the West Virginia Academy of Ophthalmology and Otolaryngology has now been completed for their annual meeting at the Greenbrier Hotel, White Sulphur Springs, West Virginia, April 10-12, 1960. Five outstanding lecturers in the field of ophthalmology and otolaryngology will present the scientific program.

For further information contact the Secretary, Dr. A. C. Esposito, First Huntington National Bank Building, Huntington, West Virginia.

Cardiac Conference for Nurses

The Middle Tennessee Heart Association, in co-operation with the North Central League for Nursing, will present a Cardiac Conference for Nurses on Thursday, April 28. The conference will be held in the Medical Auditorium of Baptist Hospital from 9:30 a.m.-3:00 p.m. and is open to all nurses. Miss Barbara Lanigan serves as general chairman.

Physicians Recently Licensed in Tennessee

Strittmatter, James C., Paducah, Ky.

Preston, William H., Jr., Nashville

Lane, James D., Memphis

Brite, Charles R., Kingsport

Carney, J. W., Memphis

Dees, Donald R., Mobile, Ala.

Gillis, Samuel P., Kingsport

Hatcher, William W., Memphis

Huff, Maxwell E., Oneida

King, Joseph A., Kingsport

Flora, Don A., Kingsport

Wheeler, Ira F., Middlesboro, Ky.

Schmidt, William F., Norton, Va.

Shelton, Alvin D., Johnson City

Nelson, John W., Memphis

Turner, Dorothy J., Nashville

Luna, Joe L., Rockford

Hinshaw, Rodrick J., Grand Rapids, Mich.

Elston, William C., Richmond Heights, Mo.

Kimbel, Bruce K., San Antonio, Texas

Snodgrass, John V., Jr., Nashville

Turbin, Richard C., Nashville

Jones, Robert D., Jr., Dyersburg

Isele, Anthony F., Jr., Memphis

Barrow, John A., III, Nashville

Dorton, Robert K., Pikeville

Hood, Dewey W., Nashville

Biggs, Albert W., Memphis

Olsen, Oluf E., Memphis

Walker, Richard H., Memphis

Star, Franklin J., Memphis

Alsobrook, William L., Brentwood

Bradley, William G., Memphis

Burrow, William B., Memphis

Farr, Stephen T., Trenton

Hockaday, Perry J., Trenton

Hodge, Maurice, Miami, Florida

Compton, Merrill E., Jr., Fairfield, Ala.

Irvine, Donald W., Tampa, Fla.

Murray, William O., Kingsport

Murphy, Venable A., Memphis

Morrison, William C., III, Memphis

Karsh, Harvey B., Memphis

Klopstock, William J., Arlington, Va.

Levitch, Melvyn A., Nashville

McCall, Herbert T., Allsiona

Peterson, Robert T., Jr., Memphis

Roy, Shane, Jr., Memphis

Sessions, Robert T., Nashville

Blackburn, James E., Frankfort, Ky.

Eichmiller, John P., Jr., Pittsburgh, Pa.

Hood, Alton L., Greensboro, N. C.

McCown, James D., Memphis

Pierce, Patrick L., Biloxi, Miss.

Capps, Eugene C., Tulsa, Okla.

Knowling, Robert E., Maryville

Summar, Alvin J., Memphis

Gillespie, Richard A., Coeburn, Va.

Flexner, John M., Nashville

Nolan, Paul V., Chattanooga

Patterson, John W., Nashville

Hunt, Jasper S., Charlotte, N. C.

Nicholas, Philip A., Nashville

Sawyer, Thomas R., Nashville

Flickinger, Ted L., Memphis

Scott, Augustus B., Humboldt

Baird, Keim L., Dyersburg

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PLACEMENT SERVICE

The placement service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee.

Locations Wanted

A 33 year old married physician. Presbyterian. Graduate University of Madrid, Spain. Board eligible in neurosurgery. Desires associate or assistant practice in neurosurgery in Tennessee community of 100,000. Available immediately. LW-342

A 28 year old married physician. Protestant. Graduate Wayne State University, Detroit. Desires location in Tennessee community of 25,000 to 50,000 in general practice. Prefers clinical work. Available July, 1960. LW-344

A 30 year old married physician. Protestant. Graduate Tulane University. Desires assistant, associate or clinical practice in Ob-Gyn in middle or west Tennessee community of 50,000. Available June, 1960. LW-345

A 29 year old married physician. Methodist. Graduate Medical College of Virginia. Desires private practice in pathology in east or middle Tennessee community. Will consider assistant or associate practice. Available July, 1960. LW-350

A 31 year old married physician. Catholic. Graduate Indiana University. Desires location in Tennessee community of 2,500 to 10,000 for general practice. Prefers private or associate practice. Available August, 1960. LW-357

A 38 year old married physician. Presbyterian. Graduate University of Texas. Desires to practice Radiology in small Tennessee community. Available June, 1960. LW-359

A 36 year old married physician. Baptist. Graduate University of Tennessee. Desires location in small east or middle Tennessee community with hospital privileges for general practice. Will consider clinical or industrial practice. Available immediately. LW-361

Two general practitioners, ages 24 and 27, married. Graduates of the University of Tennessee. Desires to establish a joint practice in medium size community in Tennessee large enough to accommodate two physicians and which is accessible to a hospital. Available October, 1960. LW-362

A 30 year old married physician. Presbyterian. Graduate Emory University. Desires general practice with surgical emphasis in east or west Tennessee community. Prefers assistant, associate or clinical practice. Available July, 1960. LW-365

A 37 year old married physician. Methodist. Graduate University of Arkansas. Desires private, associate or clinical practice in Ob-Gyn in east Tennessee community of 20,000-200,000. Available July, 1960. LW-363

Physicians Wanted

Physician in middle Tennessee town of 200,000 desires an associate GP. Office space and equipment available. PW-130

Southern Tennessee community of 1,000 desires general practitioner to replace physician who has left community to join hospital group in another community. Nearest hospital 15 miles. Office space available. Good location. PW-131

Small central Tennessee community of 1,000 desires general practitioner. No other physician located in community. Fully equipped six room clinic available. Two hospitals totaling 75-beds located 14 miles away. PW-133

Physicians in east Tennessee community of 6,000 desires an associate GP. Age 25-35 with one year internship. New private office, examining rooms and equipment available. Hospital located in community. PW-134

West Tennessee town of 500,000 in need of an eye, ear, nose and throat specialist. Office and equipment already set up in choice location in downtown office building. For sale on reasonable terms because of death. PW-135

Physician in middle Tennessee community of 5,000 desires an associate GP, surgeon, or pediatrician. Hospital located in community. Office space available in hospital. PW-138

A small rural middle Tennessee community of 800 in need of general practitioner to replace physician who is leaving community in April to enter U. S. Air Force. Office space and hospital privileges available nearby. Near good hunting and fishing area. Good location. PW-139

Physician wanted in middle Tennessee community of 12,000 to take over established practice. Present M.D. going overseas. Two 25-bed open staff hospitals and completely equipped office. Agriculture and small industry. Good churches and schools. Close to good recreational area. Excellent location. PW-140

For Sale: Fully equipped ten room clinic in east Tennessee community of 5,000. New Hill-Burton Hospital. Clinic large enough to accommodate two physicians. All office equipment and records included in sale price. Present M.D. leaving for residency training. PW-141

Small southern Tennessee community of 700 in need of general practitioner to replace present M.D. who is retiring after 44 years service. Nearest hospital 15 miles. Close to large missile base. Good location. PW-142

Copious bleeding by rectum in patients in the pediatric age group should suggest at once the possibility of ulceration of the mucosa in Meckel's diverticulum.

Massive Gastrointestinal Bleeding in Children Due to Meckel's Diverticulum with Ulceration*

ROBERT W. NEWMAN, M.D., and FRANCIS S. JONES, M.D.,† Knoxville, Tenn.

Introduction

Massive gastrointestinal bleeding in children fortunately is an infrequent occurrence. However, when one is presented with this problem it is a situation which requires decisive action. Meckel's diverticulum with ulceration and massive bleeding is the most common cause of gross melena in the pediatric age group. Our presentation is based on a personal experience in 5 patients with this condition and concerns itself with the pathologic-physiology, clinical recognition and treatment of the anomaly.

Historical

As early as the 17th century the diverticular out-pouching of the small intestine, which now bears the name of Johann Meckel, German anatomist, was described. However, it remained for Meckel, in 1808-1812, to describe the pathology of the condition and to ascribe its presence to the faulty obliteration of the omphalomesenteric duct.¹ The anomaly occurs frequently, and the generally accepted incidence of 2% in the overall population is in the same order of the occurrence of inguinal hernia in children. It would seem, therefore, that the relatively common anomaly of Meckel's diverticulum gives rise to clinical lesions infrequently, but when pathologic changes do occur they are of a serious nature.²

Zenker, in 1861, found aberrant pancreatic

tissue in the diverticulum and Denecke,³ in 1902, noted gastric mucosa in the lumen and described its relationship to gastrointestinal hemorrhage.

Embryology

The omphalomesenteric duct joins the yolk sac to the apex of a loop of midgut between the second and the fourth week of embryonic life. When the placenta takes over the nourishment of the fetus at the end of the seventh week the omphalomesenteric duct becomes obliterated. The failure to become obliterated at some point leads to a variety of anomalies, one of which is Meckel's diverticulum which comprises over 80% of anomalies of the omphalomesenteric duct. The diverticulum is antimesenteric in position, and has its own blood supply derived from the embryonic vitelline arteries which become part of the superior mesenteric system. The diverticulum occurs most frequently in the 100 cm. proximal to the ileocecal valve, and occasionally has been described as being found at a higher level.⁴ Anderson⁵ states it is found about three feet above the ileocecal valve in adults and about one and a half feet above the valve in children. Occasionally the diverticulum may swing around and lie against the mesentery and acquire a filmy covering allowing it to appear to be intramesenteric but careful dissection of the covering will allow one to see its true antimesenteric position.

Pathology

The pathologic changes leading to ulceration and hemorrhage in Meckel's diverticulum are related to the presence of ectopic

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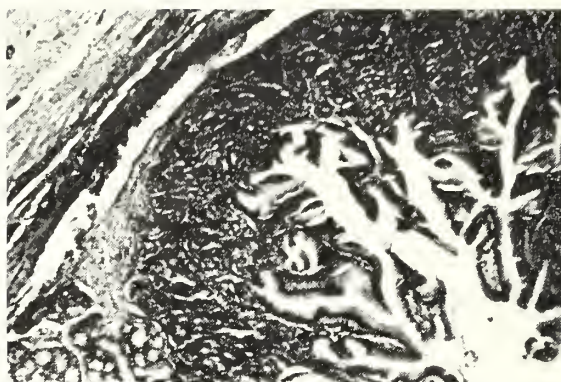


FIG. 1. Gastric mucosa with parietal cells shown in Meckel's diverticulum containing ectopic gastric mucosa and parietal cells.

gastric mucosa in the pouch (Fig. 1). This gastric mucosa is of the fundal type containing acid-secreting parietal cells. The acid is capable of causing peptic erosion of the unprotected adjacent ileal mucosa. Anderson reports an incidence of islands of gastric mucosa in 25 to 35% of all cases of Meckel's diverticulum. With either gastric mucosa or pancreatic tissue present, the chance for peptic ulceration is excellent. Waugh⁶ demonstrated that such gastric mucosa can produce the same secretions as the normal stomach. Kiesewetter⁷ reports that 29 of 50 resected specimens from symptomatic cases contained gastric or pancreatic tissue or both. Gross⁷ reports also that 70 of 130 diverticula removed showed islands of gastric mucosa on histological examination. In 50 of 149 cases in Gross's series operated upon for a complication of Meckel's diverticulum, the disease was due to peptic ulcer and hemorrhage. In all reported series the most common complication in symptomatic cases is ulceration and hemorrhage (Figs. 2 and 3).

Gastric mucosa was present in the 5 cases of our series. The mucosa was chiefly of the

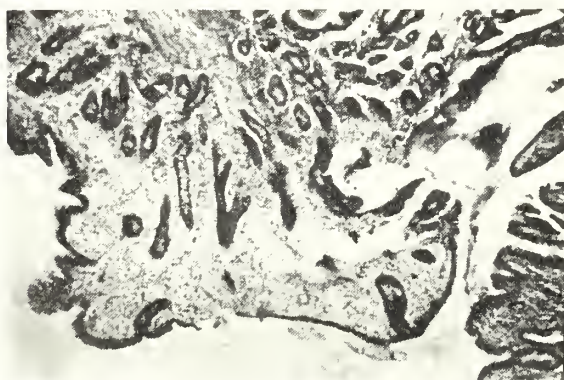


FIG. 2. Acute ulceration in Meckel's diverticulum.



FIG. 3. Chronic ulceration in Meckel's diverticulum; thrombus formation in ulcer crater.

fundic type and contained many parietal cells. The peptic ulcer was of either the acute or chronic type, and not dissimilar in appearance from the typical ulceration seen in the common gastric or duodenal ulcer. The ulceration was in the ileum at or adjacent to the mouth of the diverticulum (Fig. 4).



FIG. 4. Meckel's diverticulum in cross-section showing acute ulceration of adjacent ileal mucosa.

Berman and associates⁸ state, if serial sections are studied from diverticula that have caused bleeding, nearly 100% will show gastric or pancreatic mucosa.

Significant Gastrointestinal Bleeding

A survey was made of all pediatric admissions to four general hospitals in Knoxville, for the period 1948-1958. (Table 1.) During

Table 1
SURVEY 1948-1958
(4 Hospitals of Knoxville)

Pediatric Admissions	Diagnosis "Gastrointestinal bleeding"	Cause Meckel's Diverticulum
29941	15 (0.05%)	5

this period 29,941 children were admitted, and in only 15 patients was there recorded

Table 2
MECKEL'S DIVERTICULUM WITH ULCERATION

Case	Age	Sex	Prior Bleeding	Prior Diagnosis	HCT	Admission Hgb. (Gm.)
S.M.	9 mos.	F	Yes x 1	Intussusception	16%	7
G.A.	5 yrs.	M	Yes x 3	Peptic ulcer	21%	8
E.R.	5 yrs.	M	Yes x 1	—	11%	3.65
L.A.F.	18 mos.	M	Yes x 2	Undiagnosed	28%	9.5
J.S.	14 yrs.	M	No	—	30%	9.35

significant hemorrhage into the gastrointestinal tract. Meckel's diverticulum with ulceration was the cause of the bleeding in 5 of the 15 patients, and in all 5 children it was massive in character and rectal in location. (Table 2.) None of the 5 children with Meckel's diverticulum and hemorrhage had had bloody vomitus. Three of the 15 patients had vomited blood, but only one had massive hemorrhage. The remaining 7 had bleeding of rectum of only slight to moderate amounts and none required blood transfusions to correct the anemia.

Clinical Findings. The clinical picture may be summarized as shown in Table 3.

Table 3

CLINICAL PICTURE

1. Painless rectal bleeding (massive).
2. 75-80% below age 2.
3. Lethargy, collapse, pallor, fast pulse.
4. Hematocrit—30% or under.
5. Normal bleeding and clotting times.
6. Negative findings x-ray-gastrointestinal.

A child or infant with massive bleeding from ulceration due to a Meckel's diverticulum is presented with a chief complaint of painless rectal bleeding. Seventy-five to eighty percent of the patients are below the age of two years. The child shows signs of blood loss by pallor, sweating, fast pulse and lethargy or collapse. The hematocrit is under 30 percent. Bleeding and clotting times are normal. If gastrointestinal X-rays are obtained, they are normal.

Case Presentations

Case 1. A. A. F., III (Patient of Dr. Felix Line). This was an 18 month old white boy admitted to the East Tennessee Baptist Hospital with signs and symptoms of massive bleeding from the rectum on Mar. 7, 1956. He had saturated three diapers with red and dark blood with some clots. Immediately prior to the onset of the present illness the child had been well.

Past History. He first had a massive hemorrhage from the rectum at the age of 6 months, and was evaluated in New Orleans at that time, and all the data were negative including investigation for blood dyscrasia, barium enema, proctoscopic examination and gastrointestinal series. At 9

months of age he had a recurrence of rectal bleeding of a mild nature.

The child was a full-term baby born by cesarean section. There was no family history of polyposis or fibrocystic disease. The child had never vomited blood.

Physical Examination. The child was pale, restless and sweating. The abdomen was soft; no masses could be felt. On rectal examination there was a blood clot high in the rectum; the material in the rectum was of a reddish-black color. No masses were felt.

Blood Studies. Hgb. was 9.5 Gm., RBC. 3,720,000, hematocrit 28%, and WBC. 11,650, with 24 polys. 73 lymphocytes, 1 monocyte, and 2 eosinophils. Bleeding time was 3 minutes, 21 seconds, clotting time 4 minutes, 32 seconds. Platelets were numerous. The child was given a 200 cc. blood transfusion immediately after admission with correction of the Hgb. to 12 Gm. and the RBC. of 5,090,000.

Laparotomy was performed and a Meckel's diverticulum was found in the typical location along with ulceration in the adjoining ileum. Diverticulectomy was done and a prophylactic appendectomy.

Postoperatively the course was uncomplicated and the child made an uneventful recovery. He was discharged from the hospital on the 6th post operative day.

Case 2. J. M. W., Jr. This was a 14 year old white boy who had a sudden onset of massive rectal bleeding 5 days prior to the admission date, Feb. 8, 1952, to the East Tennessee Baptist Hospital. The blood which he passed was massive in amount and consisted of old and bright blood. He was admitted to a hospital in Norton, Virginia with a Hgb. of 51% which rose to 70% after five transfusions. There were no symptoms of nausea, vomiting, or abdominal pain.

In the past the patient had been operated upon at Charlottesville, Virginia for a hernia and an undescended testicle on the left side.

Abdominal examination. The abdomen was flat, with slight periumbilical tenderness. There were no signs of peritoneal irritation; peristaltic sounds were normal. Rectal examination showed no masses in the rectum, but there was a considerable quantity of old bloody feces with a dark appearance.

Blood studies on admission. The Hgb. was 60% (9.35 Gm.), RBC. 3,510,000, WBC. 11,700 with 87% neutrophils, and 13% lymphs, and a hematocrit of 30 percent. Bleeding time was 1 minute, 20 seconds, clotting time 4 minutes, 10 seconds.

An upper gastrointestinal series was reported as negative. Sigmoidoscopy was negative, as was the

barium enema. Laparotomy was performed and a Meckel's diverticulum was located with an ulceration at the junction with the small bowel. Resection of the small bowel and an end-to-end anastomosis was performed. Prophylactic appendectomy was also done. He was given one 500 cc. as a blood transfusion prior to operation, and given 800 cc. of blood during operation.

His postoperative course was uncomplicated.

Case 3. E. R. (Patient of Dr. Felix Line.) This is the case of a 5 year old white boy admitted to the East Tennessee Children's Hospital on Nov. 14, 1957. He was pale and listless. The history related that the child had "3 to 4 loose bowel movements yesterday," but it was not known whether these were bloody or not. He went to stool early on the morning of admission, and became weak and fell against the wall. He had had one large, bloody bowel movement on the day of admission. There was the past history of possibly bloody stools 18 months previously.

On examination there was dark red blood in the rectum. The abdomen was soft and flat with slight tenderness in the right lower quadrant. No masses could be felt. The spleen and the liver were not palpable.

Laboratory data. P.C.V. was 11%, Hgb. 3.65 Gm., RBC. 1,400,000, WBC. 13,600, with 84 polys, 12 lymphs, a platelet count of 28,000, bleeding time of 1 minute, and a coagulation time of 4 minutes, 30 seconds.

The child was given 500 cc. of blood through a "cut-down" in an ankle vein, and was taken to surgery where a Meckel's diverticulum was found. The diverticulum was large, inflamed, thick-walled, and situated next to the leaves of the mesentery of the ileum and about 25 inches from the ileocecal valve. The ileum in the area was edematous and presented a partial obstruction to the lumen of the small bowel. Diverticulectomy was performed, and the defect in the ileum closed in a transverse fashion.

Postoperatively the patient required additional blood, but there was no further gastrointestinal bleeding, and the child made an uneventful recovery. The child received a total of 1,000 cc. of blood to correct his anemia.

Case 4. G. A. (Patient of Dr. Paul Richards.) This was the child's third hospital admission for gastrointestinal bleeding of undetermined etiology. The patient was a 5 year old white boy who, on admission to the East Tennessee Children's Hospital on Mar. 7, 1956, appeared acutely ill, pale, weak and perspiring. He complained of nausea and abdominal pain. He was said to have been well until about one and one half hours prior to admission when he had a bowel movement which consisted mainly of blood. At the same time he became nauseated and vomited a large amount of nonbloody material. He vomited again shortly after admission, and the vomitus was checked for blood in the laboratory and was reported as negative.

Past History. The child had the first known

rectal bleeding at the age of 3 months. He was studied and explored at that time for a possible bleeding Meckel's diverticulum but none was found. Appendectomy was done.

The child had remained well following this exploration until approximately 3 months prior to the present admission. In these 3 months he had had three episodes of massive gastrointestinal bleeding. Exhaustive evaluation by repeated barium studies of the colon and upper gastrointestinal series had been negative, with the exception that a roentgen diagnosis of "duodenal ulcer" was made, and the child placed on an active ulcer regimen. The Hgb. at the time of the first recurrence of bleeding was 51% (8 Gm.), and RBC. 3,300,000. He was given one blood transfusion of 500 cc. at that time.

He was re-admitted to the hospital in December, 1955, with recurrence of bleeding and the Hgb. was reported as 76% (11.8 Gm. with a RBC. of 4,120,000. Stool examination was positive for occult blood. The recommendation at that time was that the child be admitted to the hospital as an emergency if he bled again and that laparotomy be carried out.

The rectal bleeding recurred on Mar. 7, 1956. Sigmoidoscopy was carried out under general anesthesia and no point of bleeding was found. Laparotomy was performed and a large Meckel's diverticulum in the characteristic location was found. However, in this instance it was buried in the leaves of the mesentery in the midileum. It had a broad base and there was gross evidence of bleeding distally in the gastrointestinal tract, but no blood was found above the level of the Meckel's diverticulum. A peptic ulcer erosion was found at the junction of the Meckel's diverticulum and the ileum. Segmental resection of the ileum and attached diverticulum was carried out, and end-to-end closure of the bowel was performed. The postoperative course was uneventful and subsequently the patient has had no bleeding.

Case 5. S. M. (Patient of Dr. Paul Richards.) This 9 month old white girl was admitted to the University of Tennessee Research Center and Hospital for the first time at the age of 8 months because of the sudden onset of rectal bleeding estimated to be "one-half pint." The blood was dark and contained large clots. This bleeding had occurred 24 hours prior to admission. On admission the patient was pale. There was no prior or associated diarrhea.

Admission laboratory work showed a P.C.V. of 16%, Hgb. of 7 Gm., WBC. of 15,900; the platelets were 600,000, and bleeding and clotting times were normal. The stool showed 4+ occult blood. Examinations by gastrointestinal series and barium enema were normal. Proctoscopic examination was negative except for the associated blood in the bowel; no bleeding points were seen.

The diagnosis on this admission was "intussusception." The patient was treated with blood transfusions which raised her hematocrit to 26 percent.

The patient was re-admitted to the University Hospital one month later with copious bloody bowel movements which were painless in character. The abdomen was soft and there were no masses. The liver, kidneys and spleen were not palpable. Rectal examination revealed bloody stool in the rectum. The patient was given a 250 cc. of blood and then was operated upon. A segmental resection of the ileum and attached Meckel's diverticulum carried out. The Meckel's diverticulum was enfolded in the leaves of the mesentery by adhesions; the ulcerated portion had perforated near the base of the diverticulum. The patient made an uneventful postoperative recovery and has had no further bleeding.

Summary and Conclusions

1. Massive rectal bleeding is the most common complication of a Meckel's diverticulum in children.

2. In a survey of 29,941 hospital admissions for children in the pediatric age group, significant gastrointestinal bleeding was encountered in only 15 patients. Five of these patients had massive rectal bleeding from a Meckel's diverticulum which contained gastric mucosa with ulceration of the adjacent ileum. Detailed case histories are presented.

3. In any patient in the pediatric age group with gross melena of painless charac-

ter with shock like picture, the diagnosis of a bleeding Meckel's diverticulum should be strongly suspected.

4. The treatment is emergency blood replacement and surgical removal of the Meckel's diverticulum and the ulcerated area of the adjacent ileum.

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The authors have applied regional perfusion in the treatment of inoperable malignancy. The complications are considered.

Complications Following Pelvic Perfusion With Nitrogen Mustard For Cancer*

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Regional perfusion of patients with non-resectable malignancies for the purpose of administering "nitrogen mustard" (HN_2) and related polyfunctioning alkylating agents in high dosage, while the bone marrow elsewhere is protected, is an increasingly frequent procedure. This form of therapy has afforded favorable palliation for some patients.^{1,2}

At this reporting, 8 patients with inoperable or recurrent malignancy have been treated. The body region containing the neoplasm was isolated. High concentrations of mustard were delivered to the tumor by means of a supporting circulation of a heart-lung apparatus. Data collected on these perfusions indicates the need for high dosage of HN_2 in perfusion therapy, if significant tumor regression is to be realized. Follow-up studies are too short to allow any statement concerning permanent curative effects on the malignant processes. On the contrary some data are available concerning complications that may arise from the procedure. It is even possible that these, rather than bone marrow damage, may become the limiting factors in dosage of HN_2 in perfusion procedures.

Method

An extracorporeal circuit utilizing a membrane lung for oxygenation was set up as shown in figure 1. The aorta and vena cava were occluded to isolate the pelvic circulation. The lower extremities were excluded by pneumatic tourniquets applied to the up-

per thighs. Heparin was given and the patient was hooked up to the pump circuit. This circuit communicated with the body either through plastic catheters in the aorta and cava or through the femoral artery and vein.

The drug, either HN_2 or phenylalanine mustard, was introduced into the arterial side of the pump circuit. HN_2 in isotonic saline suspension was administered in four equally divided doses at 5 minute intervals. Phenylalanine mustard was suspended in propylene glycol and given in one dose.

After introduction of the final dose of HN_2 , a perfusion was continued for 15 minutes to allow for decay of any residual drug. Phenylalanine mustard was perfused into a patient for a one hour period, after which the old blood in the pelvis circuit was exchanged for fresh.

Maximum hemopoietic depression in our patients occurred from the fourth to the eleventh day after perfusion. The typical leucocyte and platelet response experienced by a patient perfused with HN_2 is shown in figure 2.

Phenylalanine mustard usually caused a more profound and persistent depression of the bone marrow in the dosages employed. One patient, with malignant melanoma metastatic from the vulva, had depression down to 200 leukocytes one day and the count remained between 1,000 and 2,000 per cu. mm. until the thirtieth day when it gradually returned to normal. The platelet count at one time was down to 4,800 per cu. mm.

Bone marrow from the sternum and iliac crest, taken for examination following perfusion, revealed that the marrow depression was confined almost entirely to the pelvic area, signifying good anatomic isolation by

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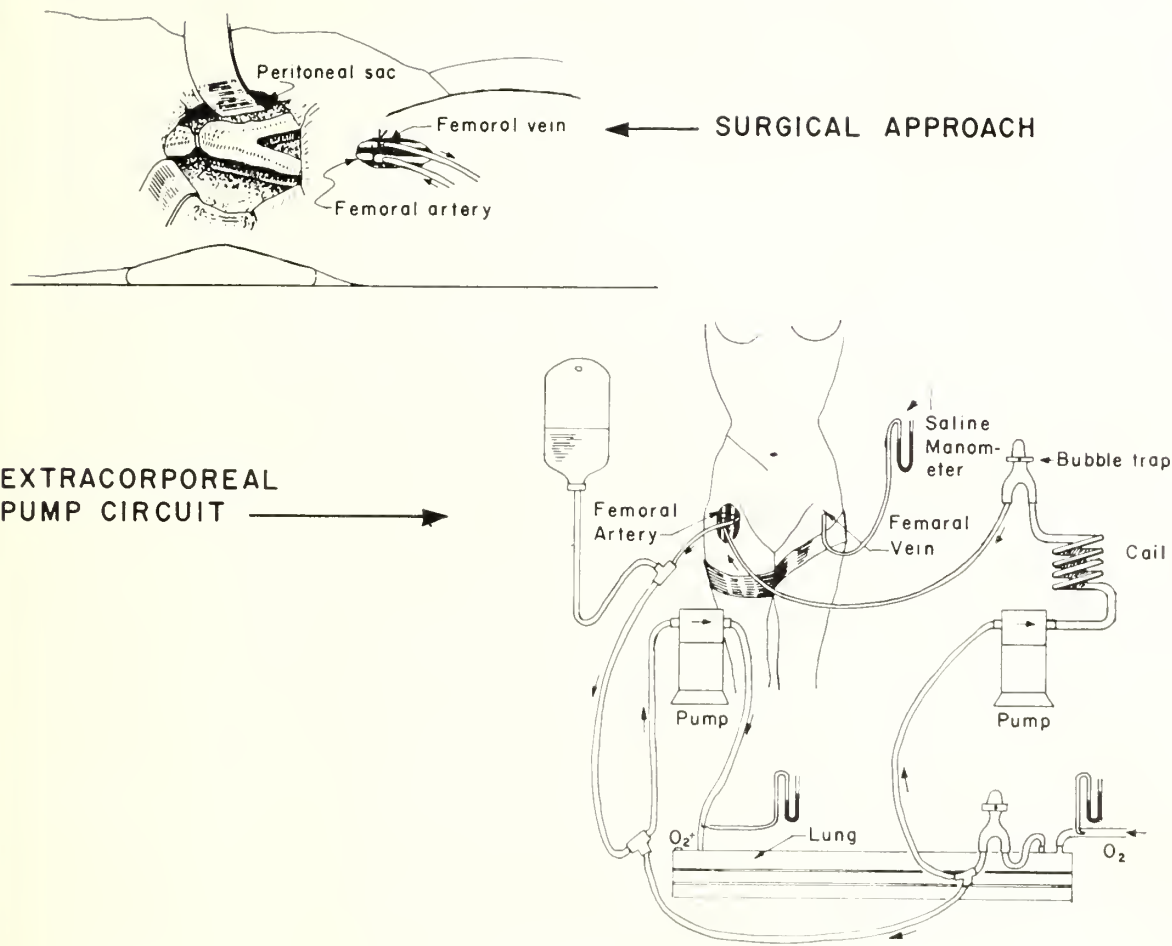


FIG. 1.

this method. Later iliac marrow examinations showed recovery and the sternal marrow was not appreciably affected.

Material

The 8 subjects perfused by this technic

had pelvic carcinoma not amenable to conventional therapy. In 4 patients the treatment was given as a palliative measure or for the relief of pain.

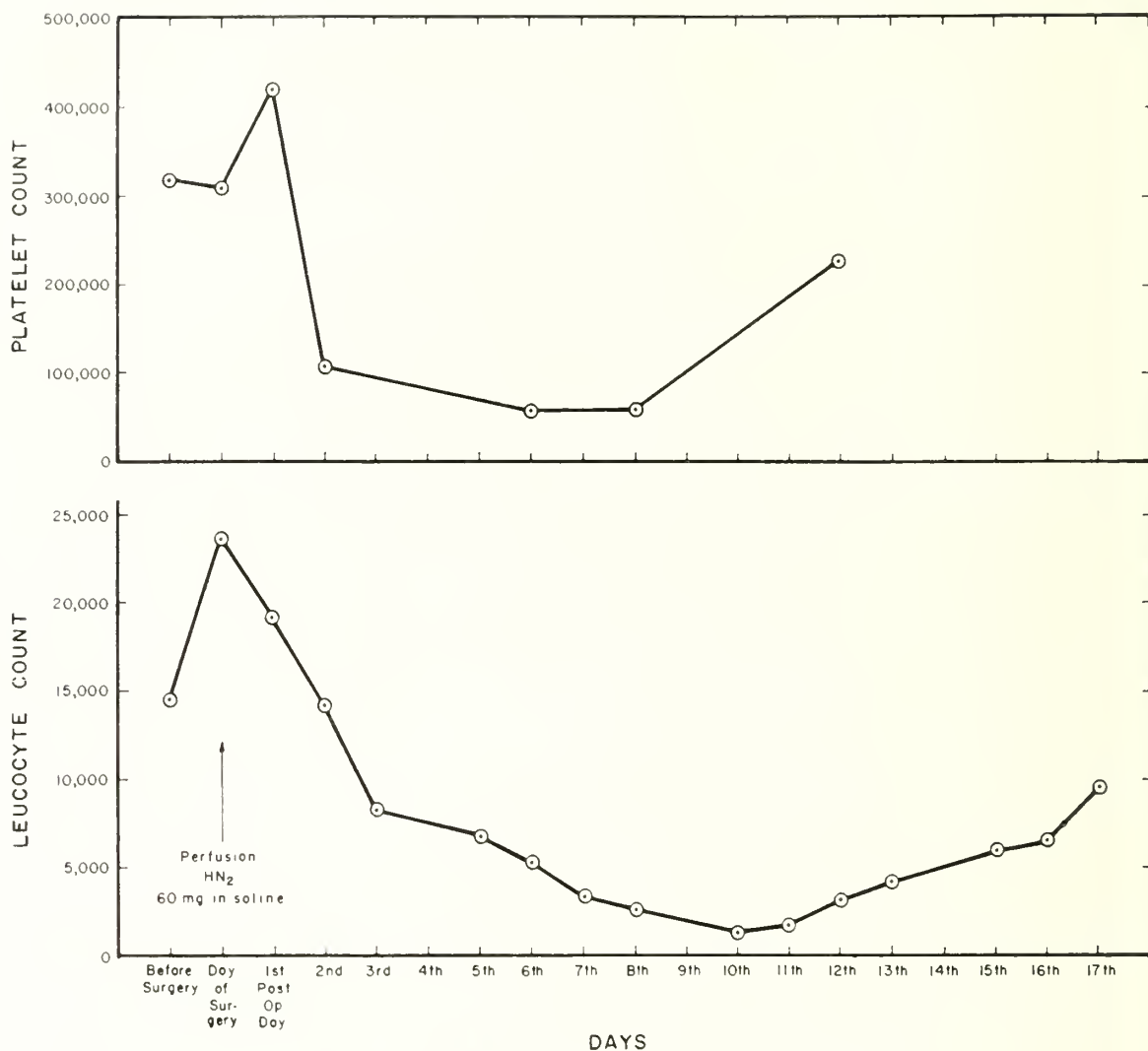
The ages of the patients, the date of perfusion, type of malignancy, alkylating agent

Table I
LOCALIZED PELVIC PERFUSION WITH THE MUSTARDS

Patient	Age	Date	Malignancy	Drug	Remarks
1	61	10/7/58	Endometrial carcinoma	HN ₂ *	Well
2	47	11/6/58	Endometrial carcinoma	HN ₂	Well
3	44	12/3/58	Recurrent cervical carcinoma	HN ₂	Well
4	36	3/13/59	Melenoma of leg with pelvic metastases	PAM*	Relieved of intractable back pain. Wt. gain
5	66	3/18/59	Cervical carcinoma with pelvic metastases	HN ₂	Died 24 hours postoperative
6	64	3/25/59	Melanoma of vulva with pelvic metastases	PAM	Complete pain relief apparently well
7	34	4/1/59	Recurrent cervical carcinoma	PAM	Died 36 days postoperative of generalized staphylococcus infection
8	32	6/17/59	Recurrent cervical carcinoma	PAM	Too early to evaluate result

*HN₂—Nitrogen mustard

*PAM—Phenylalanine mustard



Platelet and leucocyte response to Nitrogen Mustard.

FIG. 2.

employed and short term follow-up are shown in table 1.

Patient 2 is apparently well of her cancer to date, but received peripheral nerve damage resulting in a foot drop and weakness of the right extremity.

Patient 5 with metastatic vulval melanoma has apparently had good results with relief of severe pelvic pain, and she is able to carry on normal activity. She had complete epilation of her scalp 6 weeks following the perfusion, but the hair is beginning to grow back.

Patient 7 developed a wound infection following operation and died with generalized metastatic staphylococcal abscesses involving the liver, spleen, lungs and even the heart muscle. There was no evidence of gross tumor in the body at autopsy. Multiple biopsies of the vaginal vault after perfusion showed no histologic evidence of carcinoma. That same area had previously contained carcinoma.

Discussion

Pelvic perfusion was planned with the intention to produce permanent regression of the neoplasm. To make this at all possible, a cancericidal dose of HN_2 had to be delivered to the tumor without producing lethal generalized bone marrow damage. Almost total depression of the pelvic bone marrow is considered tentatively a good criterion for measuring the efficacy of therapy. Holland and Regelson¹² found the greatest effect on the tumor when hemopoietic depression was most pronounced. In effect, the bone marrow is thought to mirror the efficacy of the drug. Others have demonstrated that simple intra-arterial injection of mustards into the circulation of certain tumors causes, at best, temporary tumor re-

gression.^{4,10} Intravenous HN_2 has been palliative in a limited number of tumors. Dosage has been the limiting factor because of the effect of these drugs on the whole body with instances of extreme bone marrow depression.⁶ The use of an auxiliary circulation for the tumor area through which the alkylating agents may be administered permits higher local dosage with less general effect on the body. This is analogous to shielding in X-ray therapy. The use of a heart-lung machine makes possible maximum tissue oxygenation and elimination of carbon dioxide in the isolated body region. This is important, since it has been shown that high oxygen saturation is necessary for maximum radiation effect.⁷ The radiomimetic drugs would be expected to exert greatest activity also with full oxygenation. The use of extended perfusion, made possible with a heart-lung apparatus, allows drug action to be extended over a longer period of time than is possible by simple injection. This is probably important, since dividing cells are not equally susceptible to alkylating and other tumoricidal agents throughout the cycle of division. The cells are most susceptible during early interphase.

Karnofsky⁸ and others have not found the alkylating agents to show any selective specificity for tumor types. The drugs, in fact, affect all tissues in the body to varying degrees. Experimentally, it has been demonstrated that high doses of nitrogen mustard inhibit the respiration of most tissues.⁹ This effect is dependent upon proliferative rate of the tissue and apparently nothing else.

Phenylalanine mustard has a more easily controlled action against tumor cells because of a slower disintegration rate. The duration of action of Phenylalanine mustard has been estimated to be from two to six hours, as opposed to HN_2 which is active only two minutes or less.¹⁰ This has permitted more precise dosage and clinically has resulted in some instances of increased effectiveness. Ryan has observed prolonged regression of malignant melanomas perfused with phenylalanine mustard but was able to show only temporary regression in other tumors perfused with HN_2 . This suggests that phenylalanine mustard may supplant HN_2 as the drug of choice for all perfusion

procedures. There is no convincing evidence that phenylalanine mustard is selectively taken up by melanomas or that its mechanism of action is different from that of other alkylating agents. The impression of a selective specificity given by the clinical literature appears to be erroneous.

Alkylating agents have one property in common, an affinity for acting on the nucleic acid and nucleoproteins of cells. *In vitro* experiments show them to act specifically on proteins, DNA, and the nucleoproteins of the cell nucleus.¹¹ The faster proliferative rate of neoplastic cells allows more cells sensitive to the agent to be inhibited. When mustard is released in a biologic system, those chemical moieties first encountered react with it. Small doses of mustard may thus be expended through useless reactions, leaving little or none available for action on neoplastic cells. In localized perfusion of three of our patients, the bone marrow response, as reflected by the leucocyte response and depression was disproportionate to the dose of HN_2 administered. The lowest dose, which caused little or no depression, was almost half that given to the patient reported here, who in addition to marked local marrow effect, had nervous system injury. This question cannot be answered without first considering the effectiveness of circulatory isolation.

In regional perfusion, marrow depression appears no longer to be the limiting factor in mustard dosage, because damage to distant marrow can be prevented. This is analogous to the avoidance of total body irradiation in X-ray therapy. The ability to give large local doses of mustards leads potentially to pathologic effects not seen when nonlethal doses are administered to the patient as a whole and even unanticipated in lethal doses. In this regard, the lesions of peripheral nerves suffered by one of our patients are most important and interesting.

Spitz studied postmortem tissues from patients receiving HN_2 therapy prior to death.¹² Pathologic lesions were confined for the most part to bone marrow, ulcerations of the gastrointestinal tract, and testicular atrophy. Damage to nerve tissue was not mentioned in her report. Others have made similar observations in mammals autopsied after receiving lethal doses of

mustard compounds. Woodhall's work in perfusing the brains of dogs with HN_2 does, however, demonstrate the potential neurotoxicity of alkylating agents. Animals treated with high dosages of HN_2 developed seizures, electroencephalographic changes, and failed to survive. In the work in which he originally suggested the use of isolated regional perfusion, Klopp also produced changes in the brains of dogs by perfusing them intra-arterially.^{1,2} He found that the animals treated chronically with HN_2 by intracarotid injection developed atrophy of the cerebral and cerebellar hemispheres. Lesions of the basal ganglia were also present. He did not, however, find any extracranial nervous system lesions when the animals were autopsied. As isolation procedures improve and a wider variety of drugs are explored, it is expected that more new nonfatal pathologic lesions will be encountered.

From what has been said, the question arises as to whether a drug with such general tissue affinity can be administered in high enough dosage to cause permanent neoplastic regression without prohibitive side effects. Although complete isolation is known to be technically difficult to achieve, the localized marrow depression together with pelvic nerve damage and radiomimetic skin effect over the external pelvis alone suggest that clinically an acceptable isolation was obtained in the present case and should be generally obtainable. When a number of patients have been given local alkylating agents to the point of major complication and their course has been followed over a long time, an answer regarding effectiveness can be given.

One patient in this study received approximately 0.8 mg. per kg. of nitrogen mustard given to the pelvis. The magnitude of this dosage becomes apparent when it is compared with the intravenous LD_{50} dose in man, estimated to be about 1.0 mg. per kg. Administration of HN_2 in this dosage range is possible only with a regional perfusion technic or in conjunction with homologous marrow infusions which is technically difficult.

Further simplification of local perfusion is possible. Parkins and associates¹¹ have shown recently that it is possible to isolate

the inferior body region with balloon catheters introduced into the aorta and inferior vena cava through the femoral vessels thus, avoiding an abdominal or retroperitoneal operation. More efficacious drugs with greater tumor specificity are needed. Possibly some drugs not sufficiently active by other routes, or too toxic when so given, will be useful for this purpose. Combining different drugs or extending the time of perfusion should be explored. Drugs could be used either simultaneously or in sequence, using the principle of chemotherapeutic "cross-fire" to prevent resistance to a single drug from limiting the effectiveness of treatment.

Summary

By the use of regional perfusion, one can give massive doses of nitrogen mustard to an area containing cancer without being limited by the effect of bone marrow depression. On the contrary high doses may lead to unusual pathologic states. The problems and challenge of this new tool are discussed.

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The search for antiemetics goes on, and as always the results are difficult to evaluate because of the large subjective element in the symptomatology. The author believes the combination of pyridoxine with one of the synthetic antiemetics is helpful in controlling nausea.

Clinical Experience With A Combination of Trimethobenzamide and Pyridoxine in Patients With Nausea and Vomiting of Pregnancy

ORIN L. DAVIDSON, M.D., Memphis, Tenn.

It is well known that many of the large number of antiemetic and antinauseant compounds which have been introduced within the past few years become effective only in amounts producing undesirable side effects and sometimes toxicity of a serious nature. Although there is little difference in the efficacy of available compounds, the search continues for the one agent which will alleviate the distress of nausea and hyperemesis of pregnancy, and at the same time cause minimal depression and no toxic effects.

Trimethobenzamide,* a synthetic antiemetic and antinauseant has been shown by pharmacologic studies to exert a high specific antiemetic action by blocking the transmission of emetic impulses to the vomiting center from the chemoreceptor trigger zone, a medullary structure which activates it.¹ While controlling nausea and vomiting centrally, it yet produces virtually no side effects, and in clinical trials has been demonstrated to be free of toxicity.²⁻⁷

These favorable results with the drug prompted us to employ trimethobenzamide combined with B₆ in a "sustained-release" tablet in patients suffering from nausea and vomiting of pregnancy. By its effect on protein and carbohydrate metabolism, pyridoxine helps to check the metabolic disturbances which may be implicated in producing emetic symptoms in pregnancy.^{8,9} The combination of the antiemetic and B₆ was substituted for other antiemetics previously

employed. Where no antiemetic agents had been used in the past, the combination was alternated with other agents in comparable dosage or with a placebo in order better to judge the effectiveness of this preparation.

The study was conducted almost entirely with patients having nausea with or without vomiting during the first trimester of pregnancy. In only 3 cases was vomiting of such severity as to require hospitalization. The patients were encouraged to use the medication only if nausea presented a problem, and it was not dispensed to those who had only slight transient nausea during the day.

Seventy-two patients with nausea and vomiting of pregnancy, a majority of whom were from the author's private practice comprised the study. A substantial number of cases were from the private practice of two physicians who graciously cooperated in this study.[†]

At the beginning of the study two tablets (containing 600 mg. of trimethobenzamide) were prescribed at bedtime. Although favorable results were obtained in approximately half of the cases, it was judged that this dosage was inadequate for sustained daytime control; the dose was therefore, increased to an additional two tablets during the daytime hours. For the most part, the patients were encouraged to find their own dosage level, but by and large the above schedule appeared to be most satisfactory. Placebos of the same appearance were given to many of the patients as controls, usually for a period of two to three days.

*Trimethobenzamide: 4-(2-dimethylaminoethoxy)-N-(3,4,5-trimethoxybenzoyl) benzylamine hydrochloride, trade-name Tigan (Hoffmann-La Roche).

[†]Leigh Adkins, M.D. and William P. Maury, M.D.

Results

Table 1 shows the results obtained when the patients received only the bedtime dose, and table 2 summarizes the results when patients were on the placebo. While some of the patients displayed a placebo effect, none had the excellent results obtained with the active drug. From table 3 it can be seen that doubling the 24-hour dose produced decidedly greater control of the symptoms. Thus of the 72 cases, 30 obtained complete relief. Except for a very rare awareness of slight nausea, their symptoms were excellently controlled. Thirty-one patients had very satisfactory results. These were controlled except for an occasional wave of nausea, but insufficient to constitute a real problem for the patient. Eleven of the remaining patients had questionable results, or no relief at all. These were classified as poor, but in two of these cases the symptoms were so severe that prior to the administration of the combination of drugs hospitalization was required.

Table 1

SUMMARY OF RESULTS OF TREATMENT WITH
TRIMETHOBENZAMIDE WITH PYRIDOXINE
(Two tablets at bedtime)

	Number of Patients	Excel- lent	Results Satis- factory	Poor
Nausea without vomiting	11	3	3	5
Nausea with vomiting	8	2	2	4
Total	19	5	5	9

Table 2

SUMMARY OF RESULTS OF TREATMENT
WITH PLACEBO
(Two tablets at bedtime and b.i.d.)

	Number of Patients	Excel- lent	Results Satis- factory	Poor
Nausea without vomiting	8	—	2	6
Nausea with vomiting	14	—	4	10
Total	22	—	6	16

Table 3

SUMMARY OF RESULTS OF TREATMENT WITH
TRIMETHOBENZAMIDE WITH PYRIDOXINE
(Two tablets at bedtime and b.i.d.)

	Number of Patients	Excel- lent	Results Satis- factory	Poor
Nausea without vomiting	23	7	13	3
Nausea with vomiting	49	23	18	8
Total	72	30	31	11

Side Reactions

It was gratifying to observe the complete

lack of side effects in any of the cases studied. Drowsiness, mental confusion, rash, or any other undesirable side effect was not encountered, even in those patients who were placed on 8 tablets per day, or a total of 2400 mg. of the antiemetic drug. A substantial number of patients, who had been successfully treated with other antiemetics, indicated their preference for this combination because they were free of drowsiness.

Comment

Regardless of the drug being evaluated, one must always bear in mind that some patients will have poor results. Particularly is this true in nausea in pregnancy. There are many who have emotional stresses with or without pregnancy where nausea is a persistent complaint. We attempted to exclude this group from our study.

It would seem that this new compound is highly effective in alleviating nausea and vomiting in a majority of cases. Because of the extended duration of action made possible by sustained release of the drug, the bedtime dose prevents the development of "morning sickness," and the daytime dose continues to provide relief for the rest of the day. This is especially important for the patient who is employed during the early months of pregnancy, and in whom the symptoms often interfere with employment. The complete absence of annoying or harmful side effects make this drug particularly desirable.

Summary

1. Trimethobenzamide, a proven antiemetic combined with pyridoxine, was employed as an adjunct in the treatment of 72 patients suffering from nausea and vomiting of pregnancy.

2. Two tablets, each containing 300 mg. of trimethobenzamide and 25 mg. of pyridoxine were given at bedtime. Two additional tablets were given if required at mid-morning and mid-afternoon.

3. Sixty-one patients obtained excellent to satisfactory results.

4. No side effects were observed or reported by the patients.

5. In our experience this preparation was found to be a safe and very satisfactory

agent for the relief of nausea and vomiting of pregnancy.

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The Indications and Contra-indications for Surgery in Ventricular Septal Defect, Occurring as an Isolated Malformation or in Association with slight over riding of the Aorta. Neill, Catherine A. and Taussig., Helen P. *J. Pediat.* 55:374, 1959.

Patients with small ventricular septal defects and small left to right shunts, the so called mal-adie de Roger group, should not be operated on because pulmonary hypertension rarely develops and the risk of surgery outweighs any possible benefit.

In children with larger defects and mild or moderate pulmonary hypertension, the pulmonary artery pressure may maintain a steady level during childhood and then fall as the years pass. This is in contrast to the commonly held idea that pulmonary hypertension is steadily progressive throughout childhood and makes surgery a matter of urgency in all children with ventricular septal defects. These children can be greatly

benefitted and surgery is indicated if the operative risk can be kept at a minimal level.

The presence of a large left to right shunt and severe pulmonary hypertension may rarely justify operation in infancy. In early childhood operation is certainly to be considered where severe right ventricular hypertrophy is encountered, in the presence of a sufficiently large defect to permit blood to be ejected into the lungs at systemic levels of pressure.

Patients with shunt reversal, cyanosis, fixed pulmonary resistance and a predominant right to left rather than left to right shunt (Eisenmenger Complex) are not considered candidates for surgery, pending better understanding of the post-operative management of the pulmonary hypertension. (Abstracted for the Middle Tennessee Heart Association by Thomas S. Weaver, M.D., Nashville.)

CASE REPORT

Metastatic Tumor of Orbit*

Charles M. King, M.D., Memphis, Tenn.

A white woman, P. C. aged 43, was first seen by me on Sept. 17, 1957. The *chief complaint* was "that about 10 days ago while looking at TV I discovered vision in my left eye was very poor." She normally did not wear glasses even at her work in a bank. No history of any recent illness or injury was obtained. The left eye was not painful and there was no redness. The past history was negative for any serious illness or disease. She has one grown daughter; the menstrual history was not contributory.

On first examination the left eye was normal to external examination; pupillary responses were normal. Vision in right eye was 20/25, Jaeger 4 correctable to 20/20, Jaeger 1 with +0.75 sph, -0.50 cyl. axis 170°, add +0.75 sph. for reading. Vision in the left eye was 20/300, Jaeger 0 corrected to 20/20, Jaeger 1 with +4.25 sph. -0.75 cyl. axis 30°, add +1.00 for reading gave Jaeger 1. No diplopia could be elicited, and no impairment of the extraocular muscles was evident. No ptosis or exophthalmos were found. Ophthalmoscopic examination, under mydriatic, showed the right fundus to be normal, the retinal vessels being somewhat tortuous but were not considered abnormal in caliber. The media were clear in each eye. The left optic fundus showed the disk to be flat, of normal color, and clear in outline. No abnormal vessels were present on the disk but the retinal vessels were more tortuous than those of the right eye. The posterior pole of the globe showed "stress lines" extending from the temporal aspect of the disk across and above the macular area. A faint lightly-pigmented line extended nasally from the disk toward the 10 o'clock meridian. The posterior pole of the eye gave one the impression that it was pushed forward, although no measurable elevation was charted. No retinal edema or retinal holes or tears were evident. Transillumination of the globe with the Lancaster instrument was normal. The patient was placed on Prednisolone 30 mg. daily for 3 days then 20 mg. daily for 2 days on the assumption that this was perhaps an early inflammatory condition.

Five days after the first visit, vision in the left eye was 20/20 —, Jaeger 4 partly, correct with +6.75 sph. -0.75 cyl. axis 170°, and an add of +1.50 sph. for reading. The posterior pole of the left eye appeared to be more prominent and the macular region was more involved than on previous examination. The patient was hospitalized for binocular occlusion, bed rest, and daily observation. No ptosis or exophthalmos were present at this time.

Between Sept. 23 and 26, while bed rest and occlusion were carried out the patient was studied by two colleagues. No tears or holes appeared in the retina, the vitreous remained clear and the elevated area remained. For the first time the patient complained of slight discomfort at times in region of the left superior rectus attachment. No redness or mass could be palpated here. It having been determined that a typical retinal detachment was not present, the patient was allowed to leave the hospital. While in the hospital the urine was normal, the WBC. was 9,300, with polys 64, lymphs 34, large monos. 2. The P.C.V. was 42%. X-ray studies failed to reveal evidence of any lesion in the left orbital foramen. No increase in soft tissue density was found. PA and lateral views of the chest showed "a pleural thickening in the right costophrenic angle area, no other abnormality noted of the chest. We cannot tell whether this is old or new thickening.

On Sept. 27, a slight ptosis of the left upper eyelid appeared with a suggestive limitation in elevation of the left eye. A slight exophthalmos was measured with the Hertel instrument. 15 mm. for right eye, 17 mm. for left eye.

Examination on Oct. 1 showed an increase in the exophthalmos. Measurements were 15 and 18 in the right and left eye respectively. Definite limitation in action of the superior rectus muscle was evident, and engorgement of the temporal bulbar conjunctival vessels was present. A visual field showed no abnormal pattern. Vision in the left eye was corrected to 20/25 partly with +8.25 sph. -1.00 cyl. axis 10, and Jaeger 4 partly was obtained with a +1.75 sph. add. Diplopia could be elicited up and to the left.

At the next examination, Oct. 11, exophthalmos was more marked, there being a 6 mm. difference in the two eyes. More obvious limitation of elevation was present, and a slight esotropia was found. Vision was less than 20/200 with +10.00 sph. -1.00 cyl. axis 10. There was definite evidence of indentation of the sclera at the posterior pole. The macular region was seen to be 5 diopters higher than the disk. The temporal margin of the disk was edematous and indistinct. The posterior pole of the eye had a yellowish orange color when compared with the pink peripheral retina. Exploratory orbitotomy was advised.

Routine laboratory studies were not abnormal.

Before the patient entered the hospital for orbitotomy, a spontaneous bleeding from the vagina occurred. On Oct. 12, a dilation and curettage was performed with a provisional diagnosis of incomplete abortion. Tissue study of the curettage fragments revealed "Adenocarcinoma Grade II of endometrium. Chronic cystic cervicitis with epidermidalization of the cervical glands" as the microscopic diagnosis.

Orbitotomy was done on Oct. 19 under general sodium pentothal anesthesia. The modified Kronlein approach was used but it was not necessary to resect any bone to adequately expose tumor tissue. An extensive mass of granular, friable,

*Read at the Meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 21, 1958, Gatlinburg, Tenn.

poorly encapsulated, vascular and acinous material occupied the entire lateral aspect of the orbit. This extended to the orbital apex, within the muscle cone, and could not be separated from normal orbital structures. The mass broke and crumbled piecemeal, it being impossible to maintain any line of cleavage. The lateral rectus could not be identified but was incorporated in the mass. Approximately 8 cc. of material was obtained for study, much additional soft mucoid material being removed by suction and lost. No further attempt was made to remove tissue. The lateral bony wall did not appear to be roughened. The incision was closed with 4-0 plain catgut to the periosteum and lateral canthal ligament. The skin was closed with 4-0 silk, and also to close the eyelids. Microscopic diagnosis of the orbital biopsy material was "metastatic carcinoma probably from endometrial carcinoma." The same pathologist had viewed the uterine curettage material and had made the previous diagnosis.

Consultation with the patient's general surgeon and the radiologist resulted in the decision to irradiate rather than do radical exenteration of the orbit. From Oct. 25 to Nov. 15, daily treatments with radioactive cobalt was given. The portal was 5 x 6 cm. which included the contours of the left orbit. Beam direction was anterior-posterior. Skin dose was 6200 cobalt r. with the retro-orbital tissue receiving a tumor dose of 5394 cobalt r. During the course of treatment the swelling and exophthalmos diminished steadily. Most of the reaction around the eye had cleared by the end of the treatment. Paresis of the left externus and left superior rectus muscles persisted.

"Intrauterine cobalt application was inserted on October 29 and removed November 1, being *in situ* for 70 hours. The anterior uterine wall received 5700 r. Point A received 4900 r., Point A' 2100 r., Point B 3900 r. and more peripheral areas not estimated."

At the termination of radiation therapy, edema of the orbit and exophthalmos had completely disappeared. Esotropia persisted. The lid tissue appeared thickened and less elastic. The engorgement of conjunctival vessel had disappeared.

During this hospitalization and the x-ray study of the orbital foramen, and AP and lateral views of the skull failed to reveal any gross abnormality. X-ray film of the chest was also not abnormal.

About 3 weeks after termination of radiation therapy, an epithelial erosion occurred on the upper third of the left cornea. This gradually involved the entire epithelium of the cornea, but completely regenerated within 5 weeks. The patient was feeling well and was considering returning to work.

On Jan. 23, 1958 the patient began to have nausea, pain in the head, behind the left eye, and also in the occiput. She became unresponsive and listless. Her previous personality had been one of cooperation and cheerfulness. She was readmitted to the hospital. X-ray study, Waters view, showed destruction of the lateral wall of the left orbit

extending from the orbital rim almost to the apex. Neurosurgical consultation revealed right facial weakness, hyperactive reflexes on the right, positive Hoffman on the right, and a negative Babinski. "She undoubtedly has extension of the carcinoma intracranially. I do not believe neurosurgical treatment worthwhile." The patient was transferred for domiciliary and supportive care to a nursing hospital.

Summary

A white woman, aged 43, had first symptoms involving the left eye being manifested as decreased visual acuity. No contributory history or suggestion of disease was found elsewhere until spontaneous vaginal bleeding occurred. Adenocarcinoma Grade II of endometrium was found. A rapidly progressively expanding adenocarcinoma of the left orbit, secondary to the uterine lesion occurred. Extensive irradiation of the left orbit and the primary site, the uterus, failed to arrest the progress of the disease. Evidence of intracranial extension of the malignant process was present 4 months after the first symptoms appeared.

Since completion of this paper it was learned that the patient died on or about February 15, 1958. It was impossible to obtain a postmortem examination because at the time of death she was in another state.

The fulminating nature of the disease is demonstrated by the fact that death ensued about 5 months after the first symptom presented itself.

Discussion

ALICE DEUTSCH, M.D., Memphis: In searching the literature available to me, I found many isolated case studies and several statistical reviews on orbital tumors; none of them contained a case of cervix carcinoma metastasizing to the orbit. Ingalls reported on 216 orbital tumors observed at the Presbyterian Hospital, New York City, from 1934 to 1946—there was not one case of carcinomatous metastasis. In a similar review of 679 patients Benedict found 4 with metastatic tumors of the breast. In Duke-Elder's textbook on orbit and ocular adnexa, 2 cases of carcinomatous metastasis from the cervix were quoted, one case described by Elschnigg in 1898, and one by Poliakoff in 1932. No case of metastatic carcinoma was mentioned in Lagrange's survey published in 1904; in Birch Hirschfeld's textbook of ophthalmology, a standard in European ophthalmologic literature, one case of metastatic carcinoma from the breast was discussed.

The wrinkling of the posterior pole of the eye-

ball and the appearance of stress-lines were the initial signs observed in the patient. Those signs were described first by Arnold Knapp, and ever since have been considered as one of the most characteristic signs of retrobulbar tumor, not seen in any other condition. It is obvious that only due to the careful observation of Dr. King, the continuous displacement of the posterior pole and the continuous increase in hypermetropia could be demonstrated so strikingly. Rapid local spread and invasion of adjoining tissues is typical for orbital cancer metastasis and has been generally referred to cancerous lymphangitis and to capillary emboli.

Two additional features make the case presented unusual. As a rule orbital metastasis appear some considerable time after the primary tumor had been found and removed; in the present

case the diagnosis of the cervical adenocarcinoma was established 5 weeks after the onset of the ocular signs and symptoms. The second remarkable point is the apparent absence of pulmonary metastasis: ("X-ray report of chest, Oct. 1957; pleural thickening in right costophrenic angle, uncertain if old or new lesion.") The method of transport of blood-born tumor emboli without affection of the lung as actual secondary growth and infiltration of the pulmonary veins would be difficult to explain. It is, however, quite possible that even in the absence of clinical lung-involvement a histopathologic study and serial sections would have revealed small emboli and tumor growths.

I have been much interested in this paper and am indebted to Dr. King for giving me this opportunity to discuss it.

CLINICOPATHOLOGIC CONFERENCE

Kennedy V.A. Hospital Leiomyosarcoma of Small Intestine*

Roger E. Campbell, M.D., and J. M. Young, M.D.

Present Illness. This 62 year old negro male laborer was first admitted for dysuria which was relieved by transurethral prostatic resection. A small hydrocele was also removed during that hospitalization which had been one year before his present admission.

His complaints for the present admission were episodes of loose bowel movements lasting from one to seven days during the last five to seven years. The stools did not contain blood, and the patient noted tenesmus. These episodes seemed to be more severe and frequent in the summer time. During the past 3 years he had often noted a sudden urge to defecate but was unable to pass a stool at these times. On the day prior to admission he had noted a small amount of blood in his stool and on the day of admission he developed a sudden urge to defecate and passed a mixture of much dark brown, dark red and bright red blood. He became very weak and dizzy.

Physical Examination. T. 98.6, P. 80, B.P. 120/80. The patient was described as well developed but poorly nourished. The eye, ear, nose and throat examination revealed nothing of note. The lungs were clear to percussion and auscultation. The heart was enlarged to the left with a diffuse P.M.I. A Grade III systolic murmur was heard at the apex and a Grade II systolic murmur at the base in the aortic area. Examination of the abdomen was negative. Rectal examination disclosed a large hard prostate which was rounded and smooth.

Laboratory Data. RBC. was 2.5 million with 7.5 Gm.% Hgb. The RBC. rose to 3.9 million following transfusions. The BUN. was 14 mg.%, the prothrombin time 100%. Stools were negative for ova and parasites, and cultures revealed no enteric pathogens. Scout films of the abdomen revealed considerable gas in the large and small bowels. On barium enema there was a suggestion of external compression on the sigmoid and rectosigmoid junction. A colon tube had to be introduced to remove the barium from the bowel. Chest film was negative. Contrast enema with 5% Skiodan gave no evidence of obstruction of the large bowel.

Hospital Course. The patient continued to have episodes of melena and rectal bleeding and was transfused repeatedly. His count on one occasion dropped to 1.6 million red cells.

Since the patient was continuing to bleed from the gastrointestinal tract, a Surgical Consultation was obtained. On his 6th hospital day, after eight transfusions, an exploratory laparotomy was done.

*From the Surgical and Laboratory Services of the Veterans Administration Medical Teaching Group Hospital (Kennedy), Memphis, Tenn.

Clinical Discussion

DR. ROGER E. CAMPBELL: There is one obvious omission from the protocol. It is not important whether it was left out because it was diagnostic or was left out because it eliminated so many possible diagnoses, but it is very important that sigmoidoscopic and proctoscopic examinations be done in such cases as this. I am told it was done and was negative.

First let us see if we can locate the lesion anatomically from the symptoms.

Tenesmus is the frequent and painful urge to defecate, associated generally with straining and griping, but with little results. In other words, these are the symptoms of a mass in the pelvis or impaction of some pelvic structure. It owes its character to pressure on the rectum. In women the most common cause is abnormal uterine descent with backward displacement, and it is most marked in retroversion of the pregnant uterus. Impaction of a pelvic tumor may produce this—chiefly uterine fibroids, ovarian tumors, and pelvic hematoceles. A pelvic abscess may cause this, especially if it involves the rectal wall.

The most severe example of tenesmus is found in acute dysentery. The type depends on microscopic and bacteriologic examinations of the stools. However, there are rectal conditions that cause painful and frequent, but fruitless, straining at stool. These are either of an irritative or obstructive nature. Some of the causes of this are carcinoma, rectal prolapse, polyps, and possibly thrombosed hemorrhoids.

Does melena without hematemesis help locate the lesion?

While it is generally true that melena without hematemesis indicates a lesion distal to the pylorus, this is not invariably so. Melena without hematemesis has been seen in cases of esophageal varix, in cases of gastric cancer, and in bleeding peptic ulcers.

What about the color of stools?

While the presence of bright blood in the stools usually indicates a bleeding point low in the intestine, this also is not an infallible sign. In the presence of hypermotility, the blood may be swept through the intestinal tract so rapidly that it is unaltered in the stool. According to Hilsman, the color of

the stools (whether bright red, dark red and brown, or tarry) depends more on the time the blood remains in the intestine than on the level which the bleeding occurs.

Is absence of azotemia a help?

The frequent occurrence of azotemia following melena has been confirmed by many observers. Following a single non-fatal hemorrhage the BUN increases within a few hours, usually reaches a maximum within 24 hours and drops sharply to normal by the third day. The azotemia occurs, irrespective of the cause of hemorrhage into the upper GI tract. It does not appear in hemorrhage from the colon, a fact that may prove of value in differential diagnosis.

Now may we see the X-rays and see if they will be of any help?

Because of the dilated loops of small bowel with scattered gas in the large bowel it is obvious that there is a partial low small bowel obstruction. On close observation one can see that there is a large "void" or absence of bowel in the pelvis or cul-de-sac. The barium enema films and contrast enema with Skioldan outline a mass compressing the large bowel in the rectosigmoid area (Fig. 1). There is no involvement of the

mucosa of the large bowel, and there are no polyps or areas of obstruction, and no filling defects are present.

Thus with this information we now know we are dealing with a mass causing partial obstruction of the small bowel and causing compression of the large bowel.

What are some of the small bowel lesions that could produce these findings?

Meckel's Diverticulum. Two per cent of all individuals have a Meckel's diverticulum, but it is slightly more common in males. It may contain aberrant pancreatic tissue, or gastric or duodenal mucosa in its wall. The diverticulum may perforate, ulcerate, or intussuscept. It is the most common cause of painless rectal bleeding in children under the age of two. It would be very rare for such a lesion to make its appearance so late in life as in this case, and the only way the mass could be explained would be by an abscess following perforation of the bowel.

Smooth Muscle Tumors. Leiomyoma occurs in any portion of the small bowel. About 80% occur in the jejunum and ileum. They may grow in any muscular layer either toward or away from the lumen, and their signs and symptoms depend upon this growth pattern. Those that grow away from the lumen cause few symptoms, while those that grow toward the lumen cause obstruction. These tumors frequently cause occult and severe bleeding.

I cannot eliminate this diagnosis as a possible cause of this man's chronic anemia and acute gastrointestinal bleeding. I can explain the tenesmus by such a diagnosis if the tumor were causing pressure on the rectum or rectosigmoid area of the colon. Leiomyosarcomas also occur in the same areas, but these are more rapid growing, and cause complete obstruction after a shorter period of symptoms. Carcinoid tumors occur mainly in the ileum and rarely in the duodenum. They are most common in the appendix and rectum. They are submucosal and cause bleeding and obstruction but are usually not large.

Hodgkin's Disease and Lymphosarcoma of the Small Bowel are rare and both usually give rise to rapid emaciation and gross hemorrhage, and run a more severe and quickly progressive and fatal course.

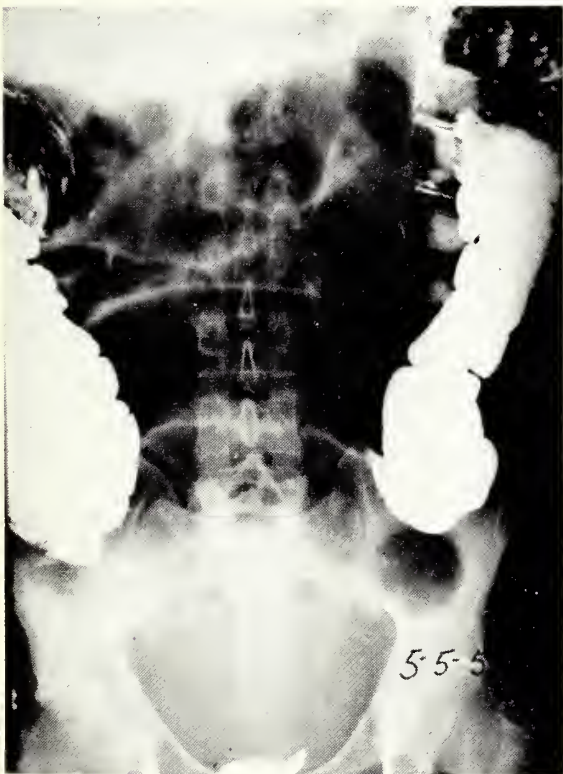


FIG. 1. Barium enema film revealing absence of contrast media in pelvic region.

Regional Ileitis. This is not rare. Dr. Crohn of New York City has reported 500 cases, and sees personally 30 new cases every year. It is widespread, but he has seen only 2 cases in Negroes, and one in the Puerto Rican race. Most cases are between the age of 20 to 40, the youngest 15, and the oldest 50.

The disease begins at the ileocecal valve and extends upward along the terminal ileum for variable distances. Most often eight to twelve inches are involved. Succulent, enlarged mesenteric lymph nodes accompany the extent of the intestinal involvement. They are signal nodes and as such are important landmarks to the examining surgeon as limiting the areas involved. These nodes rarely break down nor do they become calcified as in tuberculosis. "Skip" lesions are common.

Chronic ileitis usually has a long history extending over months or years. Usually there is a history of many years of diarrhea, mild or in bouts, and accompanied by colicky abdominal pains, relieved immediately by a bowel movement. Intermittent fever is frequent, though not a constant finding.

During the later phases a mass may appear in the R.L.Q. or across the suprapubic region. The mass is the soggy, edematous, inflamed terminal portion of the ileum, plus engorged mesentery and adherent neighboring loops of gut. In long standing ileitis a low grade or incomplete intestinal obstruction may occur. Occult blood and some mucus are usually present in the stool. One of the most pathognomonic findings is the formation of fistulous tracts.

Given protracted diarrhea in a young person, a mass in the R.L.Q., fever, anemia, and typical radiographic picture of a filling defect in the terminal ileum, the diagnosis of ileitis is not difficult. The "string sign" on barium meal is pathognomonic.

Primary Ileocecal Tuberculosis. This is rare in comparison with ileitis. In a complete pathologic survey of all the autopsy and surgical material at the New York Mount Sinai Hospital for 16 years, only 8 cases of primary ileocecal tuberculosis were disclosed. In 2 of these the terminal part of the ileum was the seat of a primary mucosal tuberculosis; in six others the ileum and cecum were involved. In all other

cases the supposed primary intestinal tuberculosis was secondary to a process elsewhere in the body, namely in the lungs, joints, or lymphatics.

An occasional loose stool or recurrent diarrhea is one of the most common symptoms. Where the rectum or lower part of the colon is involved the stools are copious, watery and contain pus and blood. Hemorrhage is rare, but has been reported as a cause of death. Anemia is found frequently. The temperature may be normal for days and then go only to 99-100.

Amebiasis. The incidence of this disease in the United States is estimated at 5 to 10% of the population. Amebic lesions occur most frequently in the cecum and rectum. The ileocecal valve and the lowermost portion of the ileum may be involved, but not the ileum proper. The appendix is often infected and may be inflamed, edematous or ulcerated. In rare instances these ulcers show granulomatous tumors. These tumors stimulate malignant growth but tend to vary in size from day to day. They may be polypoid, ulcerated or pyogenically infected, or consist of hard, indurated tissue. Ochsner and DeBakey in 1936 proposed the name "ameboma" for such a tumor. The usual sites are the rectum, rectosigmoid junction, and the cecum.

If the ulcers are in the cecum the stool contains occult blood. If in the rectum the discharge is blood streaked. Erosion of a large vessel results in frank hemorrhages.

The symptoms of intestinal amebiasis can vary from none to serious dysentery. The chronic form with symptoms usually shows a pattern of chronic constipation, and at times tenesmus. Typically after heavy eating or drinking the patient is awakened at night by abdominal pain, which is relieved by a large diarrheal bowel movement, free from blood and mucus. Semifluid stools may be passed for another day or two, after which the patient is constipated again until the next diarrheal attack occurs, weeks or months later.

Amebic dysentery occurs in patients with lesions in the sigmoid-rectum region. It is characterized by tenesmus and the passage of trophozoites of *endamoeba histolytica* and blood and mucus, but little fecal matter. The incidence of amebic dysentery is

not high, for less than 2% of those infected have this "classical" type of amebiasis. The severity of the symptoms, of course, depends on the extent of the lesions in the sigmoid and rectum. The dysentery is milder in cool climates.

The onset is usually abrupt. The patient is suddenly seized with severe colicky pains in the abdomen and the urge to defecate. The stools are at first semifluid and streaked with blood. After a day or two tenesmus becomes severe and the bowel movements increase in number to ten or more, and consist of small amounts of mucus and blood, and contain trophozoites. The patient usually has a temperature of 100 to 102.

Considering the symptoms presented by this patient and the negative stool examinations a diagnosis of amebic dysentery or amebiasis cannot be made.

Carcinoma of Cecum. Carcinoma of the right part of the colon and cecum almost always are grossly papillary in character. The papillary carcinoma grows into a large, fungating cauliflower-like lesion which projects into the lumen and has a friable, bleeding surface. Oozing of blood from this large surface for a long period causes a marked anemia so often associated with carcinoma of the cecum and ascending colon.

Symptoms are pain or abdominal discomfort of some type in most cases. It may merely be a "heavy feeling," "sense of fullness," or a soreness on the right side. The discomfort may be localized to the right side, but occasionally it is in the epigastrium. Complaints of anorexia, sour stomach, and epigastric fullness are not uncommon. Weakness is frequent from the blood loss and resulting anemia. Changes in bowel habit occur in about a third of the cases. Frequently this occurs as an increase in the number of stools passed daily, and occasionally as alternating diarrhea and constipation.

An abdominal mass can be palpated in about 75% of the cases. Without physical findings or barium enema evidence one could not make a diagnosis of carcinoma of the cecum in this case.

We are therefore left with two entities that could be the cause of this man's trouble.

One is a tumor of the small bowel most

likely a leiomyoma. A leiomyosarcoma would probably have caused total obstruction in a shorter period than the 5 to 7 year span presented here. One could postulate, however, a malignant change in a leiomyoma.

From the X-ray appearance this "tumor mass" is about 8 cm. in diameter. I can remember no case in which there has not been more massive hemorrhage long before the tumor reached this size.

The other diagnosis is regional ileitis. Against this diagnosis is the following:

1. Only 2 cases have been reported in the Negro.
2. The oldest age at which this disease has been reported is age 50.
3. With disease of this long standing one would expect fistulous tracts to the skin, bladder or colon.
4. Occult blood is seen frequently but the frank hemorrhage noted here would be rare.

Clinical Diagnoses

I believe, however, that the most likely diagnosis in this case is regional ileitis. My second choice is leiomyoma or leiomyosarcoma of the ileum.

Findings at Operation

DR. YOUNG: When the exploratory laparotomy was performed a mass was found blocking most of the pelvis. This was a ball-like tumor incorporated in the wall of the ileum. (Fig. 2.) It measured 10 by 8

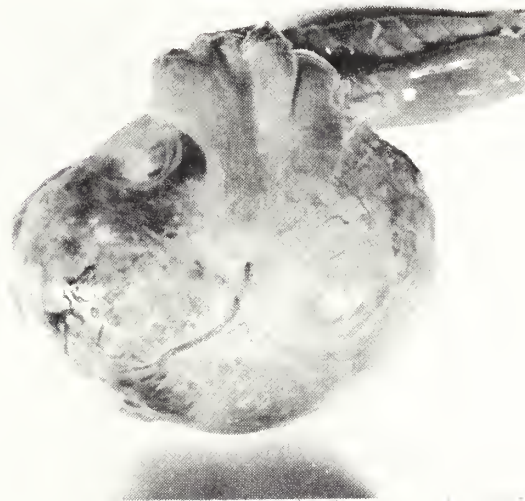


FIG. 2. Tumor attached to ileum.

by 8 cm. and when sectioned revealed extensive hemorrhage and necrosis (Fig. 3)

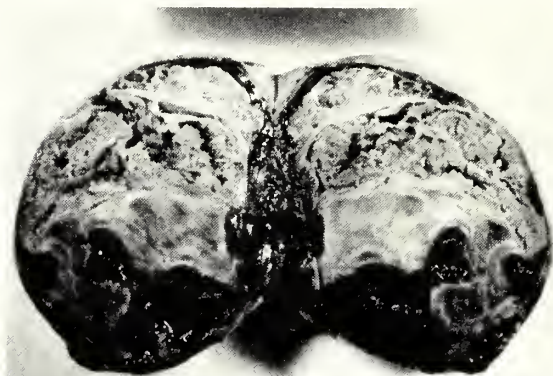


FIG. 3. Cut surface of tumor showing hemorrhage and necrosis.

and a tract leading into the lumen of the bowel. Microscopically this was a smooth-

muscle tumor, and because of its cellular pleomorphism and scattered mitoses we are classifying it as a low-grade leiomyosarcoma of the small intestine. (Fig. 4.)

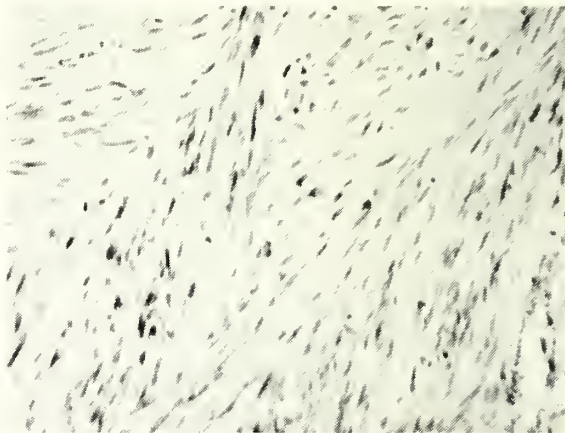


FIG. 4. Microscopic appearance of tumor.

Anatomic Diagnosis

Leiomyosarcoma of the Ileum.

President's Page



HARMON L. MONROE

A year has passed since the gavel was handed to me and I began my term as President of this Association. I well recall my feelings on that occasion—pride in the appointment, determination to do the job, and desire to fill the position in keeping with my distinguished predecessors.

My appreciation goes to the Association for the opportunity to serve the cause of organized medicine. I end my term with mixed feelings of regret for the large amount of unfinished business, and thankful to all of those who during the year helped me in the conduct of the office of President.

I have enjoyed my travels through Tennessee, and the privilege of representing Tennessee Medicine at conferences and societies within and without the state.

It is my opinion that the pressing problems of medicine are economic. In spite of, or perhaps because of, the advances in medicine, the more pressing problems today are economic rather than scientific. This does not mean that all problems of disease are solved or soon will be, since there is a need for even greater effort today to take full advantage of the medical gains that we have realized.

Most of the criticism of the medical profession today arises from purely economic factors, chiefly medical costs. Most articles appearing in the press criticizing the doctors are generally complaints about the expense of an illness, medical fees, high cost of drugs and expensive hospitalization. The increasing urgency of patients for complete medical security is only a part of the rapid social evolution of the past quarter century which indicates that the status quo cannot be maintained indefinitely. We cannot alter basic world-wide trends, but we must continue to strive to direct those affecting medicine. I believe we can promote the voluntary system to provide for the needs of patients in a more satisfactory manner, than if it were done by the Federal Government.

Our new President will meet many responsibilities and have many problems to solve in the next twelve months. Give him every possible assistance, to accord him your moral and physical support, and to offer your help before he finds it necessary to ask for it.

While I have served as the titular head of the Association for the past year, much of the important work has been done with the cooperation of many persons, in fact, the whole membership. Of special importance has been the contribution made by the Officers, Councilors, Trustees, Officers of component societies, Members of committees and the headquarters staff.

For the honor bestowed upon me a year ago, and for the way in which you have helped me to discharge my obligations to the Association, my most sincere thanks.

/s/ *H. L. Monroe, M.D.*

President

The New President



RALPH ORLANDO RYCHENER, M.D.
MEMPHIS

Eminent Physician and Medical Statesman

TSMA'S 72nd President

The new president of the Tennessee State Medical Association has achieved recognition as an outstanding practitioner, medical statesman, teacher, writer, civic leader, and sportsman.

Dr. Ralph Orlando Rychener was born in Archbold, Ohio. In World War I, he served as a Field Artillery Officer. He received his A.B. Degree from the University of Michigan in 1920. During that year, his proficiency in sports won for him the captaincy of the Varsity basketball team.

He was awarded his degree in medicine at Michigan in 1922, and served his internship at the University Hospital, Ann Arbor. In 1924, Dr. Rychener began his residency in ophthalmology, which he completed two years later. While in residency, he served as Clinical Assistant and later as Instructor in ophthalmology at the University of Michigan Medical School. Dr. Rychener began his practice in Memphis in 1926 in association with Dr. E. C. Ellett, a former president of TSMA, an association which continued until Dr. Ellett's death in 1947. Since 1928 he has been a Diplomate of the American Board of Ophthalmology, and from 1945 to 1956 acted as an Associate Examiner. He became a member of the American College of Surgeons in 1936.

He began teaching at the University of Tennessee School of Medicine as a Clinical Assistant in Ophthalmology in 1926. In 1932 he was named Assistant Professor and in 1947 he was appointed Associate Professor in Ophthalmology, a position he holds at present. Dr. Rychener served as Chief of Staff of the Memphis Eye and Ear Hospital in 1950. He is immediate past-president of the Memphis-Shelby County Medical Society and a member of the Board of Trustees of the Tennessee State Medical Association. For many years he was secretary and treasurer of the Memphis Society of Ophthalmology and Otolaryngology. He has held the offices of both secretary and president of the Tennessee Academy of Ophthalmology and Otolaryngology. As a member of the American Academy of Ophthalmology and Otolaryngology, he has served as Assistant Secretary for Ophthalmology, First Vice President, and as Instructor in the Academy.

Since 1956, he has served as Section Delegate for Ophthalmology to the American Medical Association's House of Delegates.

He helped organize the National Medical Foundation for Eye Care in 1955 and has served as its President since that time. This organization was formed to fill a long standing need in the socio-economic field and educational problems of Ophthalmology. Since 1933 he has been a member of the American Ophthalmological Society and served as Chairman of the Council in 1958.

In 1951, the American Academy of Ophthalmology and Otolaryngology presented Dr. Rychener with its Honor Medal. Included among his other awards are the Distinguished Alumni Service Medal, presented by the University of Michigan Alumni Council in 1951, and the University's Development Council's Citation of Honor, which he was awarded in 1956. He was also selected as a most outstanding alumnus of Michigan to become a member of the Alpha Omega Alpha.

In 1921, Dr. Rychener was married to Miss Marion C. Hatch of Ann Arbor, Michigan, who died July 31, 1959. His three daughters, Elizabeth, Virginia, and Marion are married, and each of the two older daughters has two children.

Dr. Rychener is a man with a flashing smile, a hearty laugh, and a keen zest for living. He is an avid duck hunter and a devotee of every kind of inter-collegiate sports. The Tennessee State Medical Association can be justly proud of their new president . . . a man dedicated to the profession of medicine.

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APRIL, 1960

EDITORIAL

A THOUSAND TIMES MORE DANGEROUS

Recently both the scientific and lay press have emphasized the dangers of exposure to radiation. The National Committee on Radiation Protection has made the following statement: "The increasing use of ionizing radiations makes it necessary for the medical profession to exercise great caution and restraint in the use of these agents. Current methods in practice should be reviewed to see if the same results could be obtained with less radiation." Corday and Jaffe¹ deplore the use of fluoroscopy of the heart and lungs when more information, with much less exposure to radiation of the patient and the physician, can be obtained with an x-ray film. Although certain patients may require fluoroscopic examination, the high radiation output during fluoroscopy should be stressed to all using this diagnostic tool.

Enthusiasm for the fluoroscope is easy to

understand and accounts for its widespread use by so many physicians. The chief reason for the popularity of fluoroscopy is, of course, that it is simpler to carry out than procedures for an x-ray film. Furthermore, the results are seen immediately; no time need be spent in developing films. In addition, x-ray films are expensive and this is indeed a deterrent to their widespread use. Space is at a premium in most physicians' offices and a fluoroscopic unit requires much less floor space than does an x-ray film unit with developing tanks, etc. Recently manufacturers have developed compact x-ray units and developing tanks requiring limited floor space so that x-ray film technic may be available to more physicians.

It has been estimated that during a routine fluoroscopic examination of two to five minutes duration a radiation dose of 20 to 100 r at the point of entry into the body would be expected. Taking anteroposterior and lateral chest x-ray films exposes the patient to as little as 0.002 to 0.005 r. Thus the patient receives one thousand times more irradiation during fluoroscopy than from comparable chest x-ray films.

Because the dosage of radiation depends upon the length of exposure, measures must be taken to reduce the time the patient is exposed to radiation. This time can be shortened if the fluoroscopist's eyes have been adapted satisfactorily to the dark. The fluoroscopist should not work until he has been in the dark for a minimum of 15 minutes. It is obvious that when the time required for becoming accustomed to the dark is considered, the cost of fluoroscopy far exceeds the cost of a simple x-ray film.

Fluoroscopy can only reveal relatively large structural abnormalities. Many serious lesions readily demonstrable by film examination are impossible to detect fluoroscopically. The impermanence of the record is a very real disadvantage of fluoroscopy, and the speed necessary to reduce exposure to radiation of the patient and the physician results in less exact and less deliberate examinations.

There are undoubtedly indications for fluoroscopy of the chest but these are few in number. Many cardiologists believe they can have a better understanding of

the patient's problems by studying the motions of the heart. The accuracy of such examinations is dependent upon the skill of the fluoroscopist. Except for paradoxical pulsations due to ventricular aneurysm, the hilar dance, and movements of the diaphragm, much can be learned from roentgenograms taken routinely. Enlargement of chambers of the heart and calcification of the valves can be demonstrated adequately by film technics.

In summary, there is little information that cannot be obtained more accurately from routine chest x-ray films with much less exposure to irradiation than from fluoroscopy. "No amount of radiation, however minute, can be considered inconsequential to the individual and the race."²

A. B. S.

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FAILURE IN COMMUNICATION

Recently the A.M.A. publication, "The P.R. Doctor," stated that a *revolution* is going on currently which might change the whole face of medical practice within a decade. The subject deals with the question, "who will take the leadership in solving medical and health problems?" The implied answer is that in the end the people will let "government assume the responsibility for health affairs," and that physicians are losing this responsibility by default.

The burden of the discussion referred to above is that "Doctors . . . individually and collectively are guilty of a communications failure." Apparently this is the answer which was turned up by a private firm of investigators which made a survey for the A.M.A. They found the failures to communicate falling into several vital areas as follow:

"Failure to communicate to patients understandingly and understandably about their illnesses.

"Failure to communicate effectively regarding fees and medical costs as they relate to other prices today.

"Failure to communicate effectively on a personal level with patients. This leads to complaints that the doctors are cold, indifferent to people's personal problems both medical and financial; that they don't care about people's feelings, that they make people wait too long.

"Failure to communicate the story on the long-established programs medicine has launched, i.e. to train more doctors, to get these doctors into communities needing them, to police its own ranks.

"Failure to communicate its real public interest in the case of the indigent, the aged, the economically stricken."

Some of the items deal with the economic aspects of the practice of medicine,—medical costs, fees, and the like. The lack of communication between patient and doctor in these areas has been discussed in one way or another on occasion on these pages, the President's Page and elsewhere in the Journal.

However, it should be noticed also that about half the items of failure in communication deal with topics not of an economic nature, but rather with the failure to communicate with patients on a personal level in things dealing with their own individual problems, and medical problems in general, applicable to our community, our country and the population at large. This is reminiscent of the writing by an intelligent woman who asked, "Why should an adult cease to be regarded as a normal and reasonable human being merely because he is in a hospital? I am not talking about patients who are desperately ill or in great pain, but people in full command of their senses. . . . They were all treated more or less like children . . . ordered about, humored, talked down to, but never taken seriously."

Several years ago a most instructive study was published as a Report of the National Association of Science Writers, Inc.¹ This was a cooperative effort of the Rockefeller Foundation, New York University and the Survey Research Center of the University of Michigan. By the technics of *probability sampling*, about 2000 American adults were interviewed each for more than an hour. Discoveries in nature were defined as *science* for the purpose of this sur-

¹Science, the News and the Public, New York, New York University Press, 1958.

vey, whether in the atomic field, astronomy, the human body or in a motor. The topics were divided into "science news" and "medical news."

On the basis of percentages, the "science reader" is at least a high school graduate and is middle aged. He lives in a Western or Middle Western community of from 2500 to 50,000 population or in a metropolitan suburb. He reads two newspapers daily, subscribes to two or three magazines and these provide the intellectual fare; he listens to radio an hour or more per day, and watches TV for a longer period and these are the chief source of entertainment.

The survey indicated the source of science news. Of all included in the survey (2000 persons) 326 or 17% recalled nothing about science from whatever source during the previous year. However, for the rest the newspapers were the prime source of science news, 41%; television and magazines were next in order, 27 and 25% respectively; radio as a source figured only to 4% in recollection of science news. Obviously the more media used, the greater the recollection.

Women read more medical news, and men had greater interest in nonmedical science. Of high school graduates 30% of men read medical news and 55% of women did the same. (It was less in those who attended only grade schools.) Of high school graduates who had had no science courses only 48% could answer three or four questions on science from reading. With exposure to science courses in high school the number rose to 62%, and for those who had had science courses in both high school and college recollection for scientific items in the previous year rose to 78%. Much more of interest appears in this report. The questions indicated knowledge about radioactivity, Salk vaccine, heart disease, cancer and fluoridation of water. Many expressed a desire for more science news, and women especially wished more on medicine. The self-employed and those of better income levels, and thus often with a better educational background, wished more science news at the expense of other items of interest in the newspapers and magazines.

What has this to do with "failure of com-

munication" referred to above? Your editor² speculated elsewhere upon what this all means. The intelligent and educated patient looks upon medicine less as a mystery than did his equally intelligent father of three or four decades ago. This patient is more objective as he looks at his doctor in terms of newer knowledge and reaction to scientific progress and its application to practice. Here are matters one must consider in searching for reasons why patients change doctors or consult "specialists." Who has not heard a middle aged woman say . . . "I have seen my doctor a number of times in the last three years and he hasn't even examined my breasts or womb."? They know about "Pap smears" and expect them to be done. And all too often appears the bitter complaint, "Why doesn't a doctor tell me something? It is my disease, I am intelligent, why doesn't he explain things to me!"

The top hat, the frock coat and the cane have gone and with them the doctors' word as gospel truth. No longer can the physician wrap a cloak of mystery about himself. He must recognize that many intelligent patients in 1960 want the same interpersonal exchange the doctor expects in his dealings with others in non-medical affairs. Here then is a large area of *failure of communication* which it would be well to remedy before there is irreversible and continued loss of respect for the doctor as a man in whom the patients have confidence,—not blind confidence but considered confidence.

R. H. K.

²Editorial: Science News, South. M. J. 52:488, 1959.

★

Special Item

Some Problems of the Medical Profession Today*

Carl C. Gardner, Jr., M.D., Columbia, Tenn.

What is said below has been said more than once on the President's Page, on the Editorial Page and in many other medical journals. It has been emphasized over and

*President's Address, read at the meeting of the Middle Tennessee Medical Association, November 19, 1959, Dickson, Tenn.

over by officers of the American Medical Association.

In this Political Year it is especially appropriate to publish what, I am glad to say, only a rare doctor will see in the mirror.

On more than one occasion I have bemoaned the fact that the medical profession has fallen so in the public esteem—if the press and vocal vituperation are to be believed. The paradox, however, is that 99 per cent of the time the citizen speaks only highly of his own physician and considers him his real friend. Almost always his "own doctor" is an "exception" to the general assumption. What a curious paradox! The sad point about the whole matter is that the cupidity and dishonesty of a few has tarred with the same brush the overwhelming majority who lead the lives expected of a great profession. Editor.

We are living in an age of truly remarkable scientific medical achievement, and it is in our nation that scientific medicine has reached the epitome of its attainments. In the past two decades whole groups of diseases, which were formerly most serious, have yielded in large measure to the persistence of medical scientists and physicians. Physicians and allied investigators of our own and past generations are largely responsible for the pre-eminence of American medicine today. When one considers these facts, he would naturally conclude that the medical profession should be the object of general public esteem.

Somewhat belatedly, however, we are realizing that the medical profession today does not enjoy the high general esteem which it had in preceding generations. Only last April at the Tennessee State Medical Association meeting in Memphis, our State Association President, Dr. Harmon Monroe, stated, after attending a number of the meetings of the Legislature and the hearings of some of its committees earlier this same year, that he was extremely disheartened and disillusioned by the attitude of the legislators and the public toward doctors in general and their motivations. Others who have had similar experiences have come to similar conclusions, both at state and national levels. It seems to be the general feeling that when pro-

posed legislation is endorsed or criticized by organized medicine, it is always for purely selfish motives.

Investigation discloses that the most serious criticisms of our profession center about the following main points:

1. The high cost of medical care.
 - a. Excessive charges by physicians.
2. Unnecessary and/or incompetent surgery and other therapeutic techniques.
3. Inability to get a physician in the hour of need.
4. Lack of a deep interest in patients as human beings.

1. *The high cost of medical care.* Undoubtedly the total cost of medical care has increased markedly in the past two decades, and undoubtedly the cost of medical care is frequently high. As physicians, however, we can point out certain important items to the critical laity. First is the fact that only one-fourth of the total cost of medical care today is for doctors' services. How often do we hear the statement by a person that his doctor's bill for his wife was \$2,000 during a recent illness when actually the physician may have received no more than \$200, the remainder being for hospital care, special nurses, anesthetist, drugs, physiotherapy, and the several other items in our armamentarium today? Nor should we accuse this husband of making a willful misrepresentation, because in his mind the entire bill was incurred under the doctor's direction and supervision. We should, however, when opportunity affords, correct his thinking on this matter; and we should also keep the total cost of any illness in our thinking at all times and not permit such cost to get too far out of hand. Secondly, the public should understand that it is the cost of hospital care, drugs, special nurses, and other ancillary services that has risen so markedly in the past twenty years, whereas physicians' fees have not risen as rapidly as the general cost-of-living index. Figures recently released from Washington indicate that the cost of hospital care has increased 105% in the past ten years, more than double, while doctors fees have advanced only 40%.

1. a. *Excessive charges by physicians.* With regard to the criticism of excessive

charges by physicians, thoughtful analysis of the matter would seem to indicate that, in general, physicians' fees are usually quite moderate when one considers the many intangibles involved. For instance, there is the cost of the years of premedical and medical schooling, recently estimated at \$36,000; there is the cost of one to five years of postgraduate training; there is the cost of office salaries, office rent, equipment, and numerous other items not generally considered. When one recalls further the fifty-five, sixty, or seventy hours worked per week by most physicians, compared with the forty-hour, five-day week of most employees, it is realized that the net income of the average physician could not in any sense be termed excessive.

In spite of this, one must still admit, however, that there appear to be fairly numerous instances where fees are higher than they should be. "Why do people call doctors money hungry," someone asked Representative Walter Judd of Minnesota, the senior physician in Congress. His answer, "First of all, because some of them are. You can't deny it." He believes the ones who cause the most unfavorable comment are the younger doctors who show too much evidence of prosperity too quickly.

In one actual situation occurring in another state, it is said, a surgeon rendered a bill of \$10,000 for an operation performed on a patient with the catastrophic illness endorsement to his Blue Cross-Blue Shield coverage. When Blue Shield protested, the physician was adamant. When the matter was brought to the attention of the County Society by Blue Shield, the Society was not interested. Hence the \$10,000 fee was paid even though independent investigation showed that the physician's usual fee for that procedure was \$150.

Excessive charges for "polio shots" recently received unfavorable publicity in Drew Pearson's column, and perhaps rightly so. Polio vaccine, as the public knows, costs the physicians about fifty cents per injection. According to surveys, the average charge for the vaccine in physicians' offices is four to six dollars per injection. For the family with three children, the total cost to the physician of the vaccine for five persons at four injections each is ten dol-

lars. At four dollars per injection, however, this would cost the family eighty dollars, at six dollars per injection, one hundred twenty dollars. If the giving of the injection were a difficult matter, if it required special knowledge, or if the doctor making the charge had anything to do with discovering the vaccine, the public would not object to this assessment. The ultimate effect of such charges for routine immunizations can only be a greater demand for, and utilization of, Public Health Department services for these procedures.

2. *Unnecessary and/or incompetent surgery or other therapeutic techniques.* This criticism, if valid, is of a more serious nature than that of high costs, and again there appear to be moderate grounds for certain complaints.

General Hawley, in recent years, has created much discussion in both medical and lay circles by his comments and ideas with regard to the actual versus the desirable qualifications of those doing major surgery. Though the situation is, it seems true, gradually improving, the amount of unnecessary surgery being done in some areas would appall the more naive members of our profession. In one locale in another state and to my knowledge, female pelvic surgery was extremely frequently performed, and nearly always in a manner to involve three or four operations on each patient over the years: first a tube and cysts on one or both ovaries, later removal of one or both ovaries and adhesions, later repair of a cystocele or rectocele or both, and finally a hysterectomy. One of the leading perpetrators of this practice told more than one of his closer friends that it was his feeling that no woman should pass the age of fifty years without having a hysterectomy and, presumably, a bilateral oophorectomy.

Nor should the surgeons be singled out for all the blame. Unnecessary return visits; the promiscuous giving of hormone, vitamin, and other injections when the medication is just as effective by mouth; unnecessary blood transfusions; unnecessarily frequent electrocardiograms, X-rays, and other laboratory tests all come in the same category.

Most regrettable of all accusations against us is that of incompetent treatment. Again,

because of the dramatically more serious consequences, those doing surgery are frequently singled out although all groups again share to varying degrees in this particular. All of us make mistakes at times, but incompetence is another matter. I recall a surgeon who removed a kidney without having done a pyelogram and learned shortly that the patient had been born with only one kidney. This same man, somewhat later, was doing a routine hysterectomy for questionable indications on a thirty year old mother of two or three who had had previous abdominal surgery. The lower small bowel was incised as he transected the peritoneum because it was adherent to the abdominal wall. Gross fecal contamination of the area occurred. However, after suturing the bowel, the hysterectomy was continued, and the patient died of peritonitis in about four days.

Fellow physicians, in thinking back over our own lives, we all realize that we have made mistakes, some of which may have been of rather serious import. We have in some instances charged fees which we have later felt were too high when we learned more about the family's circumstances. We have ordered many unrewarding tests in an effort to make a diagnosis. We have performed unnecessary operations. We have made mistakes in judgment and in technique in the operating room, some of which may have cost lives. We have not been available in time of real emergency. We have failed to be as patient with the sick as we should have been. Knowing these things, we are naturally very slow to be critical of our fellows, certainly a commendable trait. However, we owe a duty also to the sick and their families. And it would appear to be fundamental that, when certain of our colleagues act in a way which does harm to the good name of our profession and to the public, because of avarice or repeatedly-demonstrated incompetence, we as a group should take measures to stop these actions.

3. *Unavailability of the physician in the hour of need.* In many areas this problem is apparently almost nonexistent, in other areas it seems to be somewhat acute. Obviously, as in most things, there are two sides of the problem. The physician can

hardly be expected to work the hours most of us do, week in and week out, without rest. If we do not get away, usually we can get no worthwhile rest. And frequently the so-called emergency is an emergency only in the eyes of a self-centered patient or unreasonable next-of-kin. On the other hand, we owe it to the public to see that emergencies which may develop are adequately covered. And no great resentment should be felt if an occasional unnecessary "emergency call" is made. Many situations that are not true emergencies may seem to be so to the laity. The answer to this criticism of unavailability would seem to lie in more general use of physicians' answering services, of more general use of a rotating system for emergency coverage of hospitals, and a freer exchange of coverage between physicians in private practice. The medical profession as a whole has the duty of adequately covering whatever sickness or accident may arise whenever it may arise twenty-four hours a day, three hundred sixty-five days a year. We all share the problem of this responsibility, and we should all be willing to make personal sacrifices when necessary to cover periodically for our colleagues.

4. *Lack of a deep interest in patients as human beings.* A deep personal interest in their problems was frequently the chief nostrum which our forebears could offer the sick in making their rounds, since the number of specifics in their day was despairingly small. Yet, so effectively was this administered that the old time physician was universally revered and honored. Today, the many complexities of medicine mitigate against such interest on our part in our patients. When we have specific treatments and cures, we become restless to get on to the next patient as soon as we can. The numerous diagnostic and therapeutic aids available today through the laboratory, through the X-ray and pathologic departments, through the nursing service, the physiotherapists, and others, give an air of impersonality to diagnosis and treatment. The trend toward specialization has frequently left no one to draw the ends together and treat the whole patient. Furthermore, the constantly increasing need of us all for continuing medical education and

study sharply curtails the time available for lengthy patient interviews. Finally, third party medicine is further threatening the close physician-patient relationship. Despite these many factors which make it less easy to establish and maintain a close relationship with our patients than was the case a generation ago, the importance of so doing is often no less great. Especially is this true when caring for those suffering from prolonged and serious illnesses, and in dealing with those with functional or chronic emotional disturbances. As Peabody so aptly put it, "The secret of the care of the patient is in caring for the patient."

The primary goal of our profession is the improvement of the quality of medical care. All of us will doubtless agree that the better the physician-patient relationship, the better will medicine be practiced. It is also evident that many of the forces being exerted upon medicine today are tending to impair the physician-patient relationship as well as to encroach more and more on the professional freedom of the physician. We cannot alter the world-wide trends of rapid social evolution evidenced in the last quarter century, but we can continue to strive to direct these trends. We believe that we can accommodate the voluntary system to provide for the needs of patients in a more satisfactory manner than will ever be done by government control. However, we must realize that there is a feeling of great urgency in the minds of many persons for more complete medical security. If our profession does not act with dispatch, we will find that others will act for us in our stead and to the permanent detriment of American medicine.

What is to be our answer to the criticism being leveled at our profession today?

First, we must set our own house in order. If we are practicing in a glass house, as it were, under the constant scrutiny of the public, it behooves us to make certain that the public is not displeased with what it sees.

With regard to the high cost of medical care, the medical profession must assume leadership in the development of sound health insurance plans to make this cost less objectionable to the public. We must strive to help correct the abuses to which such

insurance is being subjected today: abuses by the patient in demanding unnecessary hospitalization and concealing pre-existing disease; abuses by the insurance companies in refusing to accept substandard risks and in refusing to acknowledge liability because of alleged pre-existing disease even though the patient may have paid premiums for years; abuses by our profession in unnecessary hospitalization for the convenience of the physician and in charging higher fees for those with insurance; and certain abuses by many hospitals. The vital importance of making voluntary health insurance work is evident when it is realized that this is the chief bulwark against complete government control of American medicine today.

In addition, organized medicine is going to have to become more alert to the physicians who make truly excessive charges. In the past, we have been most jealous of the right of each physician to set his fee. However, there must be some upper limit on fees, and organized medicine is going to have to police this problem. Only last August, Senator Wayne Morse in the Senate stated his position that the medical profession does not have the moral right to charge whatever fee it chooses to charge. Undoubtedly, this position will strike a responsive chord with many segments of the electorate.

Furthermore, our profession must increasingly discipline itself with regard to the matter of unnecessary surgery and other types of therapy and also of substandard qualities of practice. Even though the quality of practice generally would doubtless considerably deteriorate under government control, a poor standard of practice in the eyes of the public is still a reason for making a change.

While striving to correct those features for which we have been justly criticized, our profession must fight the encroachments of socialism with positive programs designed to meet the needs and demands of our present era. Dr. Louis Orr of Orlando, Florida, President of the American Medical Association, in an address delivered at the annual meeting of the American Society of Internal Medicine in Chicago last April, discussed positive approaches which he feels are of great importance at this time. Probably the most urgent issue today is the

health care of the aged. The conducting of effective relative value fee studies, he believes, is timely to enable a sounder development of voluntary health insurance, and for a variety of other reasons. Our profession must work out more satisfactory relationships with the so-called third parties involved in private medical care plans—such groups as labor unions, industry, consumer groups, and insurance organizations. And we must take an active part in guiding and directing the policies of all types of medical care plans.

But such positive programs alone are not enough. We must also greatly increase our activity individually and as groups in the political field, if we are not to be soon overwhelmed by socialization. There is roughly only one physician to every five hundred persons of voting age in the United States. Hence, it is evident that the important decisions concerning the future course of medical care in this country will be made, not by ourselves, but by those outside our profession; and their votes will be governed, by and large, by their opinion of the jobs we are doing now. And each of us is by his attitudes and actions constantly creating or modifying segments of public opinion.

We might ask ourselves, for example, how many of our employees represent us in a really favorable light among our friends, or how many would support our views on health matters with their vote because of their belief in the basic sincerity of our motivation. What percentage of our patients are satisfied with the over-all treatment they receive at our hands? What percentage of those in religious, civic, social and fraternal groups to which we belong are sympathetic with our ideas concerning philosophies of medical care? How many of these individuals would be willing to take the time, trouble, and expense to let one or more legislators know that he endorses those points for which we stand? Extensive opinion favorable to our causes arising from outside our profession would certainly often be more significant in influencing the unbiased legislator than opinions from physicians themselves.

Finally, as individuals and as County Society units, we can influence legislation by voting for those who most nearly represent

our thinking with regard to the problems of medicine and its socio-economics; and we can thoroughly acquaint our elected legislators concerning our feelings on such matters and the reasons therefore. The importance of contacting our representatives, and having those who favor our cause do so, is doubly evident when we consider that dissatisfied persons are usually quick to let their legislators know their opinions whereas most persons who are satisfied never take the time to do so.

Overstreet, in his masterful presentation *The Mature Mind*, points out that the goal of the individual should be the attainment of maturity in his thinking, his emotions, and his social development as well as in years, and that important characteristics of maturity are empathy and sociocentricity. The great political and socio-economic changes occurring in the world today may be looked upon as attempts on the part of society to attain greater maturity. Likewise, it is essential that the medical profession, a vital element of our society, become more empathic and sociocentric in its perspective. Physicians should be peculiarly suited by training, motivation, and temperament to assume constructive and progressive leadership in those matters affecting the health of our nation. If we are alert, we can accomplish the necessary changes within our present system of free enterprise; but, if we hold back, or falter, or shut our eyes to reality, we will certainly find that these changes are accomplished for us by outside forces. "As ye would that men should do to you, do ye also to them likewise." This guiding principle was enunciated by the Great Physician over nineteen centuries ago, if we can but find the way to apply it.

DEATHS

Dr. Paul Henry Dietrich, 71, Chattanooga, died on February 28th in a Chattanooga hospital.

Dr. J. N. Shipp, St. Elmo, died February 24th in a Chattanooga hospital.

Dr. R. E. Wyatt, 68, Nashville, died February 29th at Mid-State Baptist hospital.

Dr. DeWitt Holland, 69, Newbern, died February 23rd at his home.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Chattanooga-Hamilton County Medical Society

The Society met for its monthly meeting in the Interstate Building. The program consisted of a paper by Dr. Fay B. Murphey, Jr. entitled "Caplans Syndrome." "Advances in Treatment of Conductive Deafness" was the subject of a paper delivered by Dr. C. H. Alper. An interesting case report entitled "Locking Metacarpophalangeal Joint of Finger" was given by Dr. J. J. Kil-leffer.

Knoxville Academy of Medicine

The Society met on February 9th in the Academy of Medicine building. The program consisted of discussion on current research in Knoxville.

The membership gathered in the Academy of Medicine Building on March 8th to hear an interesting case report rendered by Dr. Richter Wiggall. The program was presented by the Knoxville Bar Association.

Roane County Medical Society

The monthly meeting of the Society was held in the Cafeteria of the Oak Ridge Hospital on the evening of March 29th. Dinner was served in the cafeteria. The program consisted of the subject "Fenestration of the Oval Window" by Dr. John J. Shea, Jr., Memphis.

Memphis-Shelby County Medical Society

Dr. Dwight E. Harken, Boston chest surgeon, gave the sixth annual lecture for the Memphis Heart Association at a meeting of the Memphis and Shelby County Medical Society on February 2nd at the Institute of Pathology building. He spoke on the "Surgical Treatment of Stenosis and Insufficiency of the Mitral Valve Due to Rheumatic Heart Disease."

Consolidated Medical Assembly of West Tennessee

The monthly program was presented in the New Southern Hotel on March 1st. Dr. H. L. Monroe, Erwin, president of the Tennessee State Medical Association, and Dr. Carroll H. Long, Johnson City, Chairman of

the Council of TSMA, were guest speakers. The general subject presented was "Medical Ethics."

Dr. Monroe urged doctors to take more interest in politics.

NATIONAL NEWS

The Month in Washington

(From the AMA Washington Office)

Congress has been warned against acting on legislation to provide health care of the aged before receiving the recommendations of next year's White House Conference on Aging.

Rep. Noah M. Mason (R., Ill.), ranking minority member of the House Ways and Means Committee which handles such legislation, put in the Congressional Record an exchange of correspondence with former Rep. Robert W. Kean (R., N.J.), Chairman of the National Advisory Committee supervising preparations for the White House Conference next January.

Rep. Mason said the correspondence "reveals the reason why Congress should await the results of the Conference."

"Let us not waste the \$2 million we have already appropriated to bring thousands of good minds together to suggest solutions to problems of our aging population," Rep. Mason said. "Certainly we should get the benefit of their advice rather than enact legislation in haste and without proper study."

Dr. F. J. L. Blasingame, Executive Vice President of the American Medical Association, also voiced this warning in a radio interview while he was in Washington for conferences with White House aides and Arthur S. Flemming, Secretary of Health, Education and Welfare.

Dr. Blasingame said that it would be "neither practical nor realistic" for Congress to act on such legislation until the White House Conference and other sources had compiled "more conclusive and complete information" on a nationwide basis.

Dr. Blasingame and other AMA representatives emphasized to President Eisenhower's aides and Mr. Flemming that the medical profession is unalterably opposed

to any legislation, such as the Forand bill, which would use the Social Security System to provide health care for the aged.

In his letter to Mason, Kean predicted that "in all probability" most of the White House Conference's recommendations would be for "state and local activity" in dealing with the problems of the aged. Kean said that action at the state and local level "seems most effective."

The National Association of Manufacturers charged in a pamphlet that supporters of Forand-type legislation have exaggerated the health care needs of the nation's older people. The NAM pamphlet also said the Forand Bill was an entering wedge for a "cradle-to-grave" compulsory health insurance plan.

Meantime, supporters of the Forand bill—particularly the AFL-CIO—continued an intensive pressure campaign aimed at Congressional approval of the legislation in this national election year when Congressmen are more susceptible to such pressure.

Another Democratic presidential hopeful, Sen. Hubert H. Humphrey (D., Minn.), reiterated his support for Forand-type legislation. He proposed a six-point program for aid for the elderly, including "an extension of the Social Security system to cover the cost of hospital and nursing home care for senior citizens."

Sen. John F. Kennedy (D., Mass.), a leading contender for the Democratic nomination for president, has introduced similar, but even broader, legislation.

Elsewhere on the national legislative front, prospects brightened for Congressional passage this year of a bill to permit physicians and other self-employed persons to set aside money for retirement.

The Administration, which last year opposed a bill with such provisions, appeared in mid-March to be ready to support it with modifications.

The Administration shift improved the already favorable odds that both the Senate Finance Committee, where a House-approved bill was pending, and the Senate would approve such legislation this session.

The issue of generic names vs. trade names in doctors' prescriptions came to the forefront in the Senate Monopoly Subcommittee's investigation of the drug industry.

Dr. Austin Smith, President of the Pharmaceutical Manufacturers Association, testified at a Subcommittee hearing that "behind brand names lie the reputation, reliability and skill of the manufacturer." He said use of generic terms would restrict a physician's choice as to drugs and would transfer some of the physician's responsibility to the pharmacist.

"By brand name prescription, the doctor orders for a patient a specific product in which he has absolute knowledge of quality, purity and any side effects that might have importance for a particular patient," Dr. Smith said.

Dr. R. B. Robins of Camden, Ark., who accompanied Smith at the hearing, submitted a similar statement. He said he used trade names because: "It is simpler to write such a prescription and I can be assured that no substitution will be made by the druggist—this assures me that the patient will get top quality."

Dr. Robins appeared before the Subcommittee as a private practicing physician and not in his capacity as a member of the AMA Board of Trustees.

Despite this testimony, Sen. Estes Kefauver (D., Tenn.), the Chairman of the Subcommittee, said he hoped physicians would give "serious thought" to use of generic terms. He contended that doctors thus could bring down drug prices by opening the way for small manufacturers to give the major companies "some good, honest, old-fashioned price competition."

MEDICAL NEWS IN TENNESSEE

Pathologists Gather in Memphis

More than 1,000 pathologists will converge on Memphis the week of April 24th when two large organizations hold meetings at the Peabody Hotel. The International Academy of Pathology will meet April 25-27. The American Association of Pathologists and Bacteriologists, oldest society of pathologists in the country, will hold its 57th annual meeting April 28-30.

Dr. Douglas H. Sprunt, chief of the division of pathology and microbiology at the University of Tennessee College of Medicine is president of the national association.

15,000 Tour New Oak Ridge Hospital

The new \$2,900,000 Oak Ridge Hospital was officially opened on February 15th. The program was presided over by Fred W. Ford, director, Community Affairs Division of the Atomic Energy Commission.

Dr. W. M. Seymour, president, Oak Ridge Ministerial Association, gave the invocation. Dr. C. P. Keim, president of the Board of Trustees of the Hospital, along with other officials, gave brief talks.

Legislative Forum

A large group of physicians met in Memphis on March 11th to discuss the meaning of the Forand Bill. Mr. William J. McAuliffe of the AMA's Law Division, Chicago, discussed the provisions of the bill before a large number of Memphis physicians and others. He discussed the many aspects of the bill and care for those covered by social security, and reported that the cost would be in the neighborhood of \$2 billion a year.

A. L. Kirkpatrick, manager of the insurance division of the United States Chamber of Commerce in Washington, was one of the speakers. In addition, Dr. Frank S. Groner, administrator of the Baptist Hospital in Memphis, participated in the program. Dr. Charles C. Trabue, Nashville, Chairman of the Tennessee State Medical Association's Legislative Committee, addressed the group.

Memphis Thoracic Society

The Memphis Thoracic Society met on February 24th at Kennedy Veterans Hospital. Dr. Felix A. Hughes discussed a V.A. "Surgical-Adjuvant Chemotherapy Study for Lung Cancer." Dr. Samuel Phillips reported on a V.A. Armed Forces conference on chemotherapy of tuberculosis. Other case reports were given.

University of Tennessee College of Medicine

The National Institute of Health has awarded a \$30,000 medical research grant to Dr. Cyrus C. Erickson to be used for cancer research.

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Advances in diagnosis and treatment of disease in infancy and childhood was pre-

sented during a postgraduate program, March 30-April 1. Guest lecturers on "Advances in Pediatrics" were Dr. Victor C. Vaughan, professor of pediatrics at the Medical College of Georgia, Augusta, and Dr. Fred M. Taylor, associate professor of pediatrics, Baylor University College of Medicine, Houston, Texas.

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The postgraduate course in anesthesia for the general practitioner was presented on March 17 and 18, in the John Gaston Hospital. Guest faculty members included Dr. Curtiss B. Hickcox, deputy director, Department of Anesthesiology, Hartford Hospital, Hartford, Conn., and Dr. O. Sidney Orth, professor and head of the Department of Anesthesiology, University of Wisconsin Hospitals, Madison.

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Promotions have been announced for three staff members. Dr. B. E. Everett has been promoted from instructor to assistant professor in the Department of Obstetrics and Gynecology. Promoted from assistant to instructor were: Dr. Norman Shapiro, Department of Anesthesiology; Dr. Albert W. Biggs and Dr. Howard Hasen, Department of Urology; and Dr. Thomas M. Jackson and Dr. L. L. Cohen, Department of Otolaryngology.

Three new appointments were made to the staff. They were: Dr. Felix A. Hughes, assistant professor in the Department of Surgery; Dr. R. Lee Austin, assistant in the Department of Pediatrics; and Dr. James K. Maguire, assistant in the Department of Surgery.

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Dr. Clark E. Grosvenor, assistant professor of physiology, has been awarded a \$37,706.00 grant by the U.S. Public Service for use over a three-year period for basic studies concerning the endocrine gland or hormonal factors responsible for mammary gland function during lactation.

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Mid-South Postgraduate Medical Assembly

The 71st annual session of the Mid-South Postgraduate Medical Assembly was held in Memphis at the Peabody Hotel, February 9-12. Dr. Wm. G. Stephenson, Chattanooga,

presided as president. Approximately 1500 doctors from seven states were in attendance.

Nineteen eminent specialists presented scientific papers on latest developments and progress in the fields of medicine and scientific research. Speakers on the four-day program were:

Dr. Lester A. Brown of Atlanta, associate professor of Otolaryngology and Rhinology at Emory University Medical School.

Dr. John A. Campbell of Indianapolis, professor and chairman of the department of Radiology at University of Indiana School of Medicine.

Dr. Herbert Conway of New York, professor of clinical surgery, Cornell University Medical College.

Dr. Jack Guyton of Detroit, Ophthalmologist, Henry Ford Hospital.

Dr. John E. Heslin, Albany, N.Y., president-elect of the American Urological Association.

Dr. Horace L. Hodes, New York, professor of pediatrics, Columbia University Medical School.

Dr. Alan J. Johnson, New York, assistant professor of medicine, New York University College of Medicine.

Dr. Earle B. Kay, Cleveland, Ohio, chief of thoracic and cardiovascular surgery, St. Vincent Hospital, Cleveland.

Dr. John R. McDoland, Detroit, professor of pathology, Wayne University.

Dr. Samuel F. Marshall, Boston, department of general surgery, Lahey Clinic.

Dr. Donald D. Matson, Boston, associate professor of surgery, Harvard University Medical College.

Dr. Harry Medovey, Winnipeg, Canada, professor and head of the department of pediatrics, University of Manitoba.

Dr. William F. Miller, Dallas, assistant professor of medicine, Southwestern Medical School.

Dr. Thomas F. Paine, Jr., Birmingham, professor and chairman of the department of micrology, University of Alabama College of Medicine.

Dr. Richard T. Shackelford, Baltimore, assistant professor of surgery, Johns Hopkins University Medical School.

Dr. Frank E. Stinchfield, New York, professor of orthopaedic surgery, Columbia Presbyterian Medical Center.

Dr. John A. Wall, Houston, clinical associate professor of Obstetrics and Gynecology, Baylor University College of Medicine.

Dr. J. Robert Wilson, Philadelphia, professor and head of the department of obstetrics, Temple University School of Medicine.

Memphis Eye, Ear, Nose and Throat Convention

Outstanding physicians in the fields of ophthalmology and otolaryngology lectured during the Memphis Eye, Ear, Nose and Throat Convention, February 6-8 at the Pea-

body Hotel in Memphis. Lecturing on ophthalmology were: Dr. Algernon B. Reese of New York; Dr. Jack Guyton of Detroit; and Dr. Edwin B. Dunphy of Boston. Speaking on otolaryngology were: Dr. Jerome A. Hilger of St. Paul, Minn.; Dr. Lester A. Brown of Atlanta; Dr. Howard P. House and Dr. William F. House of Los Angeles.

Topics included eye surgery, eye problems of children, common ear problems, use of radioactive isotopes and management of the hard of hearing child. Dr. Reese spoke on the subject "Seeing Eye to Eye with Russians" at a dinner meeting on February 7th. More than 100 eye, ear nose and throat physicians from seven neighboring states were in attendance. Dr. Roland H. Myers, secretary of the Memphis Society of Ophthalmology and Otolaryngology was the program chairman.

Dr. Roland H. Alden, associate dean of the Graduate School, has been named acting dean of the University's School of Biological Sciences, effective July 1. He will retain his position as professor and chief of the Division of Anatomy, and succeeds Dr. T. P. Nash, Jr., dean of the School of Biological Sciences, who is retiring. The School of Biological Sciences consists of the divisions of anatomy, chemistry, pathology and microbiology, pharmacology, and physiology.

PERSONAL NEWS

Dr. H. D. Venters, Jr., Chattanooga, spoke on the subject "Poison Control Center" over a Chattanooga television station.

Dr. Amos Christie, Nashville, was featured in a recent article in the Saturday Evening Post, dealing with his contributions on the subject of histoplasmosis.

Dr. C. Harold Alper, Chattanooga, has been elected President of the Speech and Hearing Center of Chattanooga and Hamilton County.

Dr. R. Gene Cravens has returned to Jamestown for the practice of medicine. He was formerly in practice at Crossville.

Dr. Sam H. Sanders, Memphis, has been elected second vice president of the American College of Allergists.

Dr. E. L. Caudill, Jr., Elizabethton, recently addressed the Rotary Club. His subject was "Health Care for the Aged."

Dr. Charles S. Gelbert, New Tazewell, is attending a medical seminar in Paris, France.

Dr. Hugh Smith, Memphis, participated recently in a panel discussion on "The Future of Children with Speech and Hearing Problems," at the Tennessee Conference on Handicapped and Gifted Children.

Dr. J. O. Walker, Franklin, has been awarded a certificate of merit by the Williamson County Chamber of Commerce.

Dr. Richard O. Cannon, Nashville, spoke before the Mended Hearts Club.

Dr. Houston F. Lowry, Madisonville, has been awarded the Jaycees' Distinguished Service Award for 1959.

Dr. John B. Steele, Chattanooga, has announced as a candidate for the quarterly County court.

Dr. Ralph Braund, Memphis, recently addressed the Agenda Club of Whitehaven.

Dr. I. Frank Tullis, Memphis, was the principal speaker at the District No. 1 Tennessee Nurses Association meeting.

Dr. Leland Johnston, Jackson, spoke recently to the Jackson-Madison County Health and Welfare Council.

Dr. Joseph W. Johnson, Jr., Chattanooga, recently addressed the Chattanooga Chapter of the National Office Management Association. His topic was "Personality Organization in Office Management."

Drs. Geo. K. Henshall, Jr., S. S. Marchbanks, and **Edward G. Johnson**, Chattanooga, recently participated in a program on the Tumor Clinic over a Chattanooga TV station.

Dr. H. L. Monroe, Erwin, and **Dr. Thomas F. Frist**, Nashville, recently attended a regional meeting of physicians from six states in Atlanta to consider problems of the aging. Dr. Monroe also recently addressed the Erwin Kiwanis Club discussing current bills before Congress.

Dr. M. J. Adams and **Dr. Merritt Shobe**, Kingsport physicians, were among those speaking on the future of handicapped and mentally ill children at the Fourth Annual Conference of the Handicapped and Gifted Children conducted in Chattanooga March 11 and 12.

Dr. Roy R. Bowes, Madison, attended the Clinical Congress of Abdominal Surgeons in Miami Beach, Florida.

Dr. Earl Campbell, Chattanooga, recently addressed the Civitan Club. His address was entitled "Miracles in Medicine, Past and Present."

Dr. Louis Rosenfeld, Nashville, recently addressed the Optimist Club meeting. His subject was "Cancer—Its Character, Diagnosis, Treatment and Prognosis."

Dr. W. N. Dawson, Alcoa, recently attended the President's Conference on Occupational Safety in Washington.

Two physicians have been appointed to the general practice out-patient department of the University of Tennessee College of Medicine. They are: **Dr. J. K. Avery**, Union City, and **Dr. Tinnin Martin, Jr.** of Memphis.

Dr. Laurence Grossman, Nashville, recently addressed the Bructon Lions Club in the interest

of the Heart Fund campaign. His subject was "What's New in Heart Disease."

Dr. Lorenzo H. Adams, Memphis, has been named president-elect of the Southeastern Society of Plastic and Reconstructive Surgery.

Dr. H. H. Barham, Bolivar, has moved his offices to 407 West Lafayette Street.

Dr. H. William Scott, Jr., Nashville, has been named president of the Society of University Surgeons at the national organizational meeting in Minneapolis. **Dr. Sam E. Stephenson, Jr.**, Nashville, was elected to membership in the Society.

Dr. Jesse E. Adams, Chattanooga, spoke on the subject "Open Heart Surgery" on the weekly telecast series.

Dr. W. B. Farris, Knoxville, has been named director of the state health department's maternal and child health service and associate director of local health service.

Dr. James B. Cox, Knoxville, recently addressed the Medical Secretaries Association in Knoxville.

Dr. Hollis E. Johnson, Nashville, recently addressed the meeting of the public education committee of the Tennessee Division, American Cancer Society.

Dr. John Pearson, Eidson, has announced as a candidate for the Hawkins County Board of Education.

Dr. Thomas Parrish, Nashville, recently addressed the meeting of the Middle Tennessee District American Physical Therapy Association.

Dr. Matthew Walker, Nashville, was a recent speaker before the Davidson County Unit of the American Cancer Society.

Drs. B. E. McLarty and **George T. Mills**, Memphis, announce the removal of their office from 979 East McLemore to the Claybrook Medical Building—Suite 210, located at 220 South Claybrook Street.

Dr. John J. Killeffer, Chattanooga, announces the removal of his office to the Killeffer Orthopaedic Building, 700 Dodds Avenue.

Dr. William Doak has joined **Doctors L. A. Beazley** and **W. B. Wadlington** in the Children's Clinic for the practice of pediatrics in Donelson.

Dr. H. R. Anderson, Nashville, announces the removal of his offices to the Mid-State Medical Center for the practice of internal medicine.

HISTORICAL NOTES

The Organization and Administration of the Medical Department of the Confederate Army of Tennessee (Continued)

Chapter III

The Field Medical Service

A corps of medical officers was not established solely for the purpose of attending the wounded and sick; the proper treatment of these sufferers is certainly a matter of very great importance

and is our imperative duty; but the labors of medical officers cover a more extended field. The leading idea, which should be constantly kept in view is to strengthen the hands of the commanding general by keeping his army in the most vigorous health, thus rendering it in the highest degree efficient for enduring fatigues and privations, and for fighting. (Jonathan Letterman, *Medical Recollections of the Army of the Potomac*.)

I. Health Conditions

Prior to the first battle in the West, Confederate hospitals were filled after a few weeks of camp life. Nearly all the regiments that reported had as many as half of their rosters on the sick lists. One organization, the Twelfth North Carolina, had been recruited in July of 1861. In October of the same year 800 men were unfit for duty, out of an initial strength of 1,200 men. This unit had been participating in training operations only.¹ Lumsden's Battery lost to disease sixty men out of a total of one hundred and seventy during the short period it was stationed in the vicinity of Corinth following Shiloh. Barely enough men were left to handle the horses when they evacuated that "Hell Hole."²

One salient fact present in all of these cases of organizational attrition is that without exception the units which suffered most were those from rural areas.³ The Confederate surgeons offered two explanations for this which have been accepted: the personal cleanliness of an urban contingent was much more pronounced than in the average rural outfit; and the vast majority of urban soldiers had previously come into contact with communicable diseases, whereas the Southerners serving in backwoods units had not.⁴ One surgeon stated that during a five month tour of duty in a basic training center he saw 4,000 out of 5,000 volunteers contract measles.⁵

Another factor deserving mention is the rise in the sick list as a unit became stationary. One company commander graphically illustrates this situation in his letters home:

Sept. 15th, Just at Camp Moore, 'Two of our company are sick, but not dangerously.' Oct. 3, Camp Moore, 'We have some sickness in camp.' Oct. 12, Camp Moore, 'Some 15 or 20 down sick.' Oct. 22, Camp Moore, 'Seven more buried Sunday.'

This situation persisted until the third of December when the outfit moved to Camp Chalmette: "We moved . . . no sickness. Jan. 5, Camp Benjamin, 'Health of company excellent.'"

Compare with the report after a few weeks at Corinth: "Mar. 18, 'Our regiment has suffered a great deal with sickness, and at least half of the men are unfit for duty.'"

The most troublesome disease to plague the recruits was measles. The next, in most instances, was diarrhea. Evidence shows that as high as nine-tenths of all recruits suffered from its effects.⁷ Mention must also be made of two diseases that took their toll: typhoid fever and the vague sickness known as "camp fever." This "camp fever" included both the continued and intermittent type fevers, which were probably typhus and malaria.⁸ These maladies could be called the preliminary diseases because they were the forerunners of such others as pneumonia, rheumatism, and malaria.

One of the principal causes of disease during the Civil War was ignorance of the proper means of sanitation. Much of this ignorance was inexcusable, for some of the known means of combating disease prior to the war were neglected. For example, as early as 1778 the following orders were issued by General Burgoyne in his New York expedition:

The men are to clean and oil their feet and shoes, and take every means to refresh and be prepared for long marches.

The clothing of such men as have not been properly fitted, are to be immediately completed.

As the rain lying upon the surface of the ground in camp is extremely prejudicial to the Health of the men, drains are to be made . . . to carry it off. . . . The Carpenters, etc., . . . are to be employed in collecting any materials to lay at the bottom of the tents, that may tend to keep the ground dry.

New and convenient Necessaries are to be made in the Rear of every Cantonment and Encampment every week, and the old ones filled up, at least six inches depth of Earth should also be thrown into the Necessaries in use every morning.

All orders to be most carefully read to the men every day, and the particulars explained to them by an officer."

If these same orders had been strictly adhered to during the Civil War undoubtedly much of the sickness would have been prevented.

For instance, there was utter disregard for any proper sanitary procedures when Halleck besieged Beauregard at Corinth and confined him within rather narrow limits. The most unhygienic conditions possible developed. Water was taken from ordinary mudholes and consumed with absolutely no precautions against typhoid, dysentery, and typhus. These diseases became rampant, and emaciated and enfeebled the army to the point where it was operating with as high as fifty per cent of its strength on the sick lists. Stout held "Halleck and Beauregard's dirt digging military recreation" responsible for the extreme ravages of those diseases.¹⁰

The junior officer in his failure to properly enforce the known basic means of sanitation must share responsibility with the surgeon for the high rate of disease. Regimental surgeons and company officers were needed who would instill in the whole army a knowledge of better sanitation methods. The makeup itself of the volunteer regiments presented many hindrances in accomplishing the task of proper hygienic measures. The surgeons and officers found it very difficult to enforce strict sanitary discipline on individuals they had known all their lives. The measures undertaken by Foard and Bragg to correct this situation included first, among the conscripts, severe measures for any violation of regulations. In the volunteer units where discipline was more lax, an appeal was made to common sense.¹¹ In addition, examinations weeded out those surgeons whose faults made them obviously unfit for duty.¹² Now, too, the company officers' fitness to command was judged by the sick rate in their organizations. Regular morning sick calls were instituted, and a routine efficiency began to be felt.¹³

The diet of the Confederate soldier must also be considered a cause of such diseases as diarrhea. One Southern surgeon placed the blame for the prevalence of the ailment on the absence of a trained cook in most companies. He further stated:

If a great army could employ a scientific head cook with scientific and practical assistants who could prepare food not only palatable to the taste but digestible in the stomach, many of these intestinal disorders would be avoided.

He added that, "if the stew pot would replace the frying pan many of the troubles would be ended."¹⁴

The Confederate soldier also had very poor shelter against the elements. Rare indeed was the Southerner who had a raincoat or, for that matter, even the basic requirements of a blanket and sufficient clothing. His problem of maintaining adequate footwear is only too well known.¹⁵

This shortage of necessary protective equipment and the other hardships previously cited were the basic causes of the poor conditions during the devastating winter of 1861-1862. Losses were suffered from which the army was never to recover fully. The cases of pneumonia alone were 6,974 out of a mean average strength of 40,273, or seventeen per cent of the total strength.¹⁶

Transportation was at its worst in this bitter winter. Many scenes like the following must have occurred:

The transportation of the sick from their camp at Bowling Green thence by rail to Nashville, was often a great risk to the life of the soldier. So, too, when the weather was bitterly cold, sleeting, snowing, or raining, was the transportation of the patients from the depot . . . to the hospital very trying. . . . I received thirty patients of one regiment five of whom expired before daylight following the night received.¹⁷

It was during this period that the Medical Department throughout the Confederacy was getting organized. But the department's organization was accompanied by violent criticisms from the press and public, and was not completed in the Army of Tennessee until the summer of 1862.¹⁸

2. Treatment on the Battlefield

At Shiloh, the first great battle in the West, the Medical Department of the Army of Tennessee displayed disorganization and ignorance in the handling of wounded. The ambulance drivers committed acts of negligence that were inexcusable in many instances. Their equipment merited special attention because of its poor condition. Many conveyances were wagons with no springs at all. There were some four-wheeled ambulances with comfortable arrangements, but these were scarce and in demand for use as common means of transportation; to make matters worse, officers often commandeered them for their private

use. One of the most hated conveyances was the springless Coolidge Two-Wheeler, which was held in mortal fear by patients due to its severe jolting and swaying.¹⁹

The litters ranged from clumsy expedients fashioned by tying blankets between rifles or tree limbs to a cumbersome manufactured one that was more often thrown away than used. The few folding stretchers that were the forerunners of the ones employed today were, along with the four-wheeled ambulances, frequently confiscated for private use.²⁰

No personnel was assigned as litterbearers, with the results that not only did the casualties suffer from incompetent handling, but the army lost much needed manpower when many men in the ranks gave help to the wounded. This aid was often prompted by the desire to avoid more hazardous duty.

The inadequacy of equipment continued throughout the war. This problem, combined with the rough, often brutal treatment of the quartermaster drivers, undoubtedly accounted for many needless casualties. One participant described it this way:

We traveled over the roughest roads imaginable and the thought occurred to me if the wounded were brought this way they must indeed suffer. This surmise proved to be correct, for we met hundreds of wagons loaded with sufferers wending their way to Ringold.²¹

The fact that the Confederates had to retreat also contributed to the poor care given to the wounded. The heavy rains turned the roads into quagmires that added to the miseries commonly suffered by those traveling in the springless wagons which were provided for their evacuation.²²

The scenes at Corinth, the base of operations, were just as confused as at Shiloh. At the Tishomingo Hotel the Rebels set up their largest hospital. The yard of this establishment was literally covered with limbs, and one spectator stated that:

The scenes in Tishomingo Hotel Hospital beggar description. Every yard of space on the floors, as well as all the beds, bunks, and cots were covered with the mangled forms of badly wounded soldiers. All had come from the battlefields several miles distant, many having been conveyed in rough wagons over muddy roads.

When they arrived at any of the hospital buildings, the first thing one of the women attendants had to do was to get some coffee and bread to

revive the body a little so that the wounds could be dressed as soon as possible. Next, was to find a hospital suit in order to rid them of the muddy and bloody clothes in which they had fallen.²³

There are no figures on the subject, but in addition to the poor sanitation the general letdown in morals during the long siege at Corinth must have stimulated sickness. At least one surgeon took note of this and recorded:

A stationary army suffers from lack of physical and mental exercise. Digestion and assimilation, and nutrition are promoted by activity. Also, active mental and physical exercise is cheering to the spirits of an army. An army employed is far more healthy, happy, and contented than one in idleness. Idleness breeds disease, discontent, and death.²⁴

And so it was at Corinth; disease and short and ill-prepared rations combined with the terrible monotony to take their toll. One company commander saw the problem. He mourned, "All things considered the life we live here alone is enough to make one sick."²⁵

The surgeons had had their baptism of fire. They had made mistakes that many were ready to correct. Now new medical directors were installed following Shiloh and Corinth and it remained to be seen if they could correct the procedure. The reorganization of the regiment's medical personnel began to take place and was to continue throughout the conflict.²⁶

3. Corinth to Murfreesboro

The interval between the battle at Shiloh and the engagement at Stone's River was a period of transition in the Medical Department of the Army of Tennessee. The field not only improved the services already rendered, but expanded them to include a wider variety.²⁷

The duties of the regimental surgeon were now more clearly outlined. One vast improvement came from a regulation stating that the surgeons should be consulted in determining the location of camp sites. Foard ordered all surgeons not only to pass on camp locations, but also to consult with local physicians to determine health conditions. Much of the distress caused at Corinth had resulted from the bad judgment shown in choosing places in low areas with poor drainage. While the surgeons did not

attribute the outbreaks of malaria to the mosquito, they did note that in low, swampy areas the prevalence of the disease was much greater.²⁸

In the same vein the doctors also saw that with the consumption of the filthy water around Corinth the typhoid rate climbed. They now sought to obtain clean well water whenever possible.

Finally, in order to detect disease better in its infancy, Foard ordered that the routine sick call be complied with by surgeon and patient alike. He demanded that regular hours be kept and uniform reports made.²⁹

Far more radical changes were made in the preparation undertaken to prepare the Medical Department to assume its next battle mission. At Shiloh the surgeon was a hard man to find on the battlefield. Now it was determined that aid stations would be located so as to be easily accessible. They would also be clearly marked, normally with a red flag.

In the early engagements there had been a tendency for the stations to be too close to the front lines. Furthermore, many surgeons actually forgot their assignments and instead of caring for the wounded became embroiled in battle themselves. Surgeons were ordered to maintain their stations far enough behind the lines to be out of danger of injury to their patients or to themselves. The best surgeons were concentrated in field hospitals so that their talents would be made available to the greatest numbers. No improvements were made in the archaic method for obtaining medical aidmen.³⁰ A further advantage gained by consolidating field hospitals was the gathering together of scarce medical supplies. This was especially true of surgical equipment.³¹

Normally, as a result of centralization, the regiments took on similar characteristics in their medical personnel. The surgeon, who in most cases had had some experience, was assigned to the field hospital. The assistant surgeon, who generally was inexperienced at surgery, set up the aid station for the regiment.³²

In a typical action the station was located near some outstanding landmark such as a brightly colored barn. The assistant surgeon and his aides also sought to obtain de-

filade against enemy fire in a ditch or behind an embankment of some type.³³ An unpleasant characteristic of many engagements was the tendency of the attendants to select areas for their stations close to where their unit would be deploying for battle. It was not too heartening a scene for men preparing to go into action to witness surgeons sharpening their scalpels and to hear them exchange rather grotesque jests with the corporals.³⁴

Chaplains often took up their positions at the regimental aid station. One chaplain was James McNeilly who participated in every campaign and battle with Quarles' Tennessee Brigade. In an account of his experiences he described the preparations undertaken in his unit to prepare for an engagement:

I enlisted as a private but was soon appointed a chaplain. As I had gotten used to staying with the men, I determined to remain as near them as I could, so my mess was with the assistant surgeons . . . as glorious a company of genial, energetic, ambitious young fellows as have ever went to war. The senior surgeons were generally a graver set and had their quarters somewhat removed from us. . . . I went into the field and into action with the juniors. They were to get as near the fighting line as possible, so as to afford immediate attention to the wounded. Usually I selected the place as near to the line of battle as we could get water, to where the wounded were first brought. Then I took charge of the litter corps at the beginning of the action. If the doctors exhausted their supplies I was sent back to the field infirmary, some distance to the rear to get a fresh supply such as whiskey, morphine, bandages, etc. Very soon I learned how to apply a bandage, to stop hemorrhage, to dress the slight flesh wounds. The best we could do on the field was to give temporary relief, and to send in wounded as quickly as we could to the field hospital in the rear, where the senior surgeons performed the more serious operations required. After the battle we all went to the help of the seniors [field hospital] where for days the desperately wounded were cared for.³⁵

In this instance one man continued to serve as an aidman throughout the war, but he was the exception to the rule.

The litter was used as much as the terrain permitted to transport wounded back to the aid stations and field hospitals. Litterbearers were organized under a brigade or regimental officer. Divided into teams of two men, they fell in behind their companies accompanied by a non-commissioned officer.

Much help was rendered in the removal

of the wounded by those lesser injured who were also being evacuated. In theory, ambulance service was available at the aid station; but this was seldom the case. Dr. Chisolm recommended that provision should be made to transport forty men for each thousand on duty. However, the shortage of ambulances steadily increased as the struggle continued.³⁶

Usually at regiment the patient was "tagged," that is, a slip listing his name, type of wound suffered, and any other pertinent information, was pinned on him. He was then sent to the division or brigade field hospital where the scene awaiting him was usually anything but encouraging. The hospital was in as orderly a condition as possible under the circumstances, but no matter how great the support given from the rear, there were never sufficient surgeons to handle the sudden pouring in of wounded. As soon as they completed work on one patient, the surgeons moved to another. It was not unusual for these men to labor for as long as sixteen hours at a stretch. Then they would take a two hour break and return to their operating tables.³⁷ One surgeon recalled:

One occasion we had our field hospital located in a graveyard behind a hill away from shot and shell. It was quite handy to erect the amputating table between two marble slabs, and thus to have a nice place to spread out the instruments, bandages, etc. The litter bearers were coming in frequently and putting down wounded and dying men. A striking circumstance was that there was the dead of former wars beneath us . . . and we taking off fingers and toes and legs and arms.³⁸

Amputation appears to have been the rule if there was any doubt as to successful mending of the injured part of the body. An atmosphere of dull resignation prevailed as the surgeon bent over a crude table fashioned from a door placed over a pair of kegs, or rocks, or anything else available. Most accounts tell of surprisingly few outcries from the wounded; rather, a quiet anxiety prevailed over the possible loss of a leg or arm. Some men stated that they preferred death to the amputating of a limb. In some instances they were rewarded for their stubbornness with recovery and use of the former injured leg or arm. Undoubtedly there were needless amputations in

many cases. Some accusations were made that surgeons desired to obtain surgical experience and used the wounded to achieve this end. This charge has no real foundation. Rather the point should be made that the character of the Minie ball and the type of wound it inflicted had far more to do with the necessity for many of the amputations. This projectile shattered the bone upon contact in such a fashion as to make it very difficult to set, especially under field conditions. Because of the pressure of too many patients, many surgeons tended to operate rather than hesitate and risk infection. One writer stated after the war:

Had I my field service to go through again I would amputate fewer limbs. Even without the aid of aseptic and antiseptic techniques of the present day surgery, I think much more might have been done to save fractured limbs and lives than was done. By careful removal of detached spiculae, readjustment of the larger fragments, and keeping the cases in the field hospitals many more lives and limbs could have been saved. Altogether the advances made in surgery since the days of our military service, have been such that any retrospect of our experience then, and comparison with present day methods must present a very unfavorable contrast.³⁹

From the field hospital the patient was next dispatched to a rail collection point. Many difficulties had to be overcome in this place of the operation. No hospital trains existed such as were developed in the Union Army. Rather, the Confederates were obliged to utilize boxcars and any other means of transportation they could muster.

The coordination between field and hospital was poor early in the war. Instances of "sick and wounded lying on the platform at the depot night and day" often occurred.⁴⁰ Examples of gross negligence cropped up occasionally. In one rail movement a full boxcar of wounded was left abandoned on a rail siding for forty-eight hours before it was discovered.⁴¹

These defects were erased for the most part, and an excellent system of communications was built up between the front and the rear as far as the means of the Army of Tennessee would allow.

4. Murfreesboro to Chickamauga

At Murfreesboro evidence of the improved conditions in the Medical Depart-

ment can be found. By the third of January the wounded had all been evacuated from the battlefield and were in hospitals in the rear. Thus in two days 11,500 Confederate casualties plus 500 Federal wounded were removed from the scene of the conflict.¹²

At the most sanguinary battle of the Civil War, Chickamauga, the corps really showed the vast strides that it had taken. Here the cooperation between field and hospital paid off dividends.

Telegrams were dispatched to Stout warning him of the impending battle, and he immediately sent teams of surgeons to aid those at the front. Upon the request of Foard each group was assigned to a particular division or brigade.¹³ One such team led by Dr. John L. Dismukes made their way to the battlefield by train and wagon and joined Cleburne's Division on the night of the nineteenth of September. The Division Hospital was set up at Alexander's Bridge near the Chickamauga River. The battle which had opened on the afternoon of the nineteenth began to disgorge its wounded that night. Dismukes stated that "Men were lying everywhere as thick as leaves in the fall of the year." He further said that:

Clear on through from early Sunday morning until Monday night the surgeons in all the medical aid stations were kept constantly at work. As fast as they would complete one case another would be ushered in. Numerous arguments took place between surgeon and patient. Some refused to permit the doctors to amputate their limbs. For the most part we never knew the results of our labors.¹⁴

Because Bragg took every available man with him following the battle, there was more than the usual shortage of male nurses in the field hospitals. He had left a detail behind to assist the medical personnel, but it was insufficient. For this reason female nurses were sent up by Stout to assist in the treatment of the wounded. It is interesting to note that the Sisters of Charity were given full freedom of the area by Federals and Confederates alike.¹⁵

The majority of wounded were collected at a place called Burnt Shed, about twenty miles to the rear of the battlefield. The rail line to this location had been destroyed by the Unionists with the result that wounded piled up in this spot. By the twenty-eighth

the line was re-opened and the evacuation continued. Wagons had been used in the meantime with much suffering as the result. Some wagons carried as many as fifty men at one time.¹⁶

The men were fed rations previously cooked in the rear by the personnel of the hospitals and the Georgia Relief Society. This did much to alleviate the suffering of those waiting at Burnt Shed and Ringold for transportation to the rear.¹⁷ The most acute shortage was lack of bandages. Men were bound and rebound with the same rags time and again. This shortage combined with the terrible weather condition made things more difficult for the surgeons.

The evacuation was completed by the third of October. Thus, less than two weeks after this bloodiest of battles, notwithstanding the many difficulties, all the wounded were brought to the hospitals in Macon, Marietta, Atlanta, Newman, and other Georgia locales. The surgeons in the field, aided by those from the hospitals, had ably completed their mission.

5. Chickamauga to Nashville

Chickamauga was the point of highest efficiency in the Medical Department of the Army of Tennessee. Following the loss of Chattanooga the lines of communication became shorter, but with each evacuation much needed material and manpower was lost. In the engagements at Resaca, Ringold, Dalton, and on through to Atlanta the surgeons in the field were steadily increasing in efficiency but decreasing in numbers. Many incidents attested to their gallantry. McNeilly spoke of one such occasion.

On the 28th of July in front of Atlanta our brigade lost over half of the men engaged. While we were attending to our work in a slight depression, our lines were repulsed and the enemy swept the field with grape and canister. It was out of the question to stand up so we had to kneel down and in that position to do the best we could for the sufferers. One of the junior surgeons was examining a wounded man when a shot struck them and killed him right under the physician's hands. With perfect coolness the doctor crawled a few steps to another sufferer and bound up his wounds.¹⁸

With the loss of Atlanta and the accession of Hood to the command, the medical corps underwent a strain. Upon moving back

into Tennessee, Foard ordered the hospitals to follow in the rear of the army.⁴⁹ His order was complied with as fully as possible, but because of the disastrous results of the campaign no evacuation could be arranged to the hospitals which had been set up in Alabama and Mississippi. Surgeons at Nashville stayed behind to care for the wounded as best they could. Much aid was given to them by the Federal forces.⁵⁰ For all practical purposes the doctors of both sides acted as one unit to solve their common problem.

Those men who did manage to escape were in a pitiful state. As one soldier recalled:

Wounded men got out the best way they could, many hobbling along the frozen pike on crutches. Among them were all the members of Co. K wounded at Franklin. Shoal Creek, a stream swollen at that time to formidable proportions, seemed at one time to cut off the retreat of the cripples, but the kind hearted cavalrymen carried off those who could not wade. It was nearly 100 yards wide with a rocky bottom full of holes. In one instance seen by the writer, a mule slipping threw a cripple into the water nearly to his armpits, but the soldier held on to his crutches, and without assistance finally hobbled ashore. A cavalryman who had already carried several over returned against remonstrances of his companions and took the writer across. The next morning, Saturday, December 24th, the crowd of wounded men were ferried across the Tennessee in Pontoon Boats at a point near Florence, Alabama and were safe.

They continued on to the hospitals.⁵¹

The vast improvement in the support extended to the troops testified to the unswerving devotion of those members of the Field Medical Service of the Army of Tennessee. In the face of insurmountable odds they sought to the best of their ability to perform their duty.

BOOK REVIEW

SURGERY OF THE FOOT. By **Henri L. DuVries, M.D., Chicago, Illinois.**

At long last there appears a much needed textbook of surgery of the foot. This volume, while excellent, is not exhaustive and there are several points with which this reviewer takes issue. However, that does not detract from the usefulness of this book. The format is excellent with the first

chapter devoted to structure and function of the foot followed by a chapter on examination and diagnosis and a chapter on operative principles and requirements. Subsequent chapters deal with virtually all disorders of the foot, excluding some of the acquired deformities. The book is generously illustrated with drawings, photographs and reproductions of radiograms which reproductions are in general excellent. Our hope is, of course, that this author will continue his studies of foot disorders, refine his techniques of treatment, and present it perhaps a little more concisely in subsequent volumes. The foot needs a champion comparable to Dr. Sterling Bonnell and his memorable work on the hand.—Thomas F. Parrish, M.D.

Encyclopedia of Medical Syndromes. **Robert H. Durham, M.D., Physician-in-Charge, Division of General Medicine, Henry Ford Hospital, Detroit.** 613 pages. New York: Paul B. Hoeber, Inc., 1960. Price \$13.50.

The author had a wonderful idea when he undertook to describe briefly almost 1000 syndromes as described in this text. It offers to the medical writer, to the physician having interest in the history of medicine, and to the teacher a wealth of reference material without the need for time-consuming research. To the young physician and medical student the book should be fascinating, because it indicates so well the far-reaching results of making astute clinical observations and recording them. After all, most of the syndromes were described as a result of some doctor's careful observations, which were recorded. Fundamental research relative to these observations and correlated scientific explanations came much later, if at all, to account for the clinical observations. The Encyclopedia gives the pertinent references for the reader who wishes to investigate the descriptions in detail. The reviewer feels safe in saying that any physician who is really interested in medicine and keeps abreast of medical literature will get his money's worth in this book.

ANNOUNCEMENTS

Tennessee Pediatric Society

The annual meeting of the Tennessee Pediatric Society will be held May 16-17, 1960, at the Paris Landing Inn, Paris Landing Tennessee State Park, Buchanan, Tenn. Guest speakers will be:

Kenneth S. Landauer, M.D., New York, N. Y.
C. Nash Herndon, M.D., Winston-Salem, N. C.
William F. Meacham, M.D., Nashville, Tenn.
J. C. Peterson, M.D., Milwaukee, Wis.
Ernest McCoy, M.D., Nashville, Tenn.

All Pediatricians and General Practitioners interested in Pediatrics are cordially invited. Registration fee \$3.00.

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee.

Locations Wanted

A 29 year old married physician. Baptist. Graduate Medical College of Georgia. Desires to specialize in internal medicine practice in clinic or association with other physician. Available July, 1960. LW-340

A 36 year old married physician. Protestant. Graduate Indiana University. Desirous of salaried position with regular working hours. Prefers general practice or administrative work. Available July, 1960. LW-356

A 38 year old married physician. Presbyterian. Graduate University of Texas. Desires to practice radiology in small Tennessee community. Available June, 1960. LW-359

A 32 year old married physician. Methodist. Graduate Vanderbilt University. Completing 3rd year of residency training in ob-gyn. Desires assistant or associate practice in ob-gyn in Tennessee. Available July, 1960. LW-360

A 32 year old married physician. Methodist. Graduate University of Louisiana. Desires ob-gyn practice in Tennessee community of 10,000 or over. Preferably clinical or association. Available July, 1960. LW-367

A 26 year old married physician. Lutheran. Graduate Medical College of Virginia. Desires clinical or group-type general practice in east Tennessee community of 5,000-25,000. Available August, 1960. LW-368

A 28 year old married physician. Methodist. Graduate University of Tennessee. Desires location for general practice in Tennessee community of 8,000 or more. Available August, 1960. LW-369

A 28 year old married physician. Presbyterian. Graduate University of Tennessee. Desires clinical, assistant or associate general practice location in Tennessee community of 5,000 or more. Available July, 1960. LW-370

A 32 year old married physician. Presbyterian. Graduate Tulane University. Board eligible in ob-gyn. Desires associate or clinical practice in ob-gyn in Tennessee community of approximately 50,000. Available April, 1960. LW-374

A 29 year old married physician. Methodist. Graduate University of Mississippi. Desires clinical, assistant or associate general practice location in Tennessee. Available July, 1960. LW-375

Physicians Wanted

Middle Tennessee community of 8,000 in need of a physician in the field of internal medicine. Must have 2 years internship and 1 year residency training. Office space located near newly built hospital. PW-136

Pediatrician with 2 years internship and 1 year residency training needed in middle Tennessee community with new hospital, and office building. Office furnished except for doctor's private office and examining rooms. PW-137

Physician in middle Tennessee community of 5,000 desires an associate GP, surgeon or pediatrician. Hospital located in community. Office space available in hospital. PW-138

Small rural middle Tennessee community of 800 in need of GP to replace physician who is leaving community in April to enter U. S. Air Force. Office space and hospital privileges available. Near good hunting and fishing area. PW-139

Physician wanted in middle Tennessee community of 12,000 to take over established practice. Present M.D. going overseas. Two 25-bed open staff hospitals and completely equipped office. Agriculture and small industry. Good churches and schools. Close to good recreational area. Excellent location. PW-140

Fully equipped ten room clinic available in east Tennessee community of 5,000. New Hill-Burton Hospital. Clinic large enough to accommodate two M.D.'s. All office equipment and records included in sale price. Present M.D. leaving for residency training. PW-141

Small southern Tennessee community of 700 in need of GP to replace present M.D. who is retiring after 44 years service. Nearest hospital 15 miles. Near large missile base. Good location. PW-142

Clinic in east Tennessee community of 5,000 has opening for board eligible internal medicine man. Newly constructed, full equipped clinic. PW-143

M.D. in east Tennessee community of 28,000 is desirous of disposing of his well-established general practice. All office equipment included in sale price. Present M.D. going into another branch of medicine due to accident which left him partially disabled. PW-144

General practitioner interested in preventive and occupational medicine needed in industrial plant in east Tennessee community of 28,000. Office space and equipment furnished. Regular working hours, good salary, fringe benefits. PW-145

Errors are not uncommonly made in the surgical treatment of duodenal ulcer. They usually stem from a poor understanding of gastric physiology and the pathogenesis of duodenal ulcer. Errors in judgment and poor technic add their part in the poor results which may be achieved.

Errors in Surgical Concept and Technic in the Treatment of Duodenal Ulcer*

J. LYNWOOD HERRINGTON, JR., M.D., KENNETH L. CLASSEN, M.D. and
H. WILLIAM SCOTT, JR., M.D.,† Nashville, Tenn.

Scarcely any surgical meeting is complete without a discussion of the problems arising from duodenal ulcer, and this in itself is evidence of the importance of this prevalent disease. However, in spite of the voluminous number of publications dealing with the treatment of the complications of duodenal ulcer, there continue to exist major misconceptions among some members of the medical profession in regard to the definitive surgical treatment of the disease. This in part reflects a lack of appreciation of the physiopathology involved in duodenal ulcer.

One encounters all too frequently patients who have had a limited or inadequate operation for the control of the ulcer diathesis. Also, operative procedures have been performed that are physiologically unsound, and which actually may result in an increase in the secretion of hydrochloric acid rather than a reduction in acid output. It is absolutely essential for anyone who treats the complications of duodenal ulcer surgically to possess a thorough knowledge of the factors controlling the secretion of gastric juice. Also, one should have a clear

understanding of the basic experimental data governing the production of ulcer disease, as well as experience with the proper surgical measures necessary for ulcer control.

Aside from conceptual errors regarding the surgical management of ulcer, technical errors on the part of the surgeon are likewise sometimes committed which account for an increase in postoperative morbidity and mortality.

It is the purpose of the present communication to point out certain errors in surgical concept and in surgical technic which relate to a group of patients who underwent operations for the complications of duodenal ulcer. Comments are made whereby these errors might perhaps have been largely avoided. These points are best illustrated by the following brief case reports.

Postoperative Obstruction Following a Billroth I Anastomosis (Gastroduodenostomy)

Within recent years there has been an increasing interest in vagotomy, distal gastrectomy, with end-to-end gastroduodenostomy, as definitive surgical treatment for duodenal ulcer.²⁻⁴ The operation thus far has proved quite satisfactory, but the likelihood of stomal obstruction occurring during the early postoperative period is perhaps slightly greater after a gastroduodenal anastomosis than when one of the conventional Billroth II technics is utilized. How-

*Read at the meeting of the Pan-American Medical Association, Section in General Surgery, May 2, 1960, Mexico City, Mexico.

†From the Department of Surgery, Vanderbilt University School of Medicine, the Thayer Veterans Administration Hospital, and the Edwards-Eve Clinic, Nashville, Tenn.

ever, if certain technical points are kept in mind, the incidence of stomal obstruction should remain quite low.

Case 1. A 55 year old man was admitted to the hospital with a duodenal ulcer of 20 years duration. Recently he had developed nausea and vomiting, and a recheck gastrointestinal series showed complete pyloric obstruction. After adequate study and preparation in the hospital, a vagotomy and distal 40% gastric resection with end-to-end gastroduodenostomy were done. During the post-operative course the patient developed epigastric fullness and vomiting, which did not respond to prolonged gastric suction. Barium studies showed stomal obstruction (Fig. 1). On the 10th post-

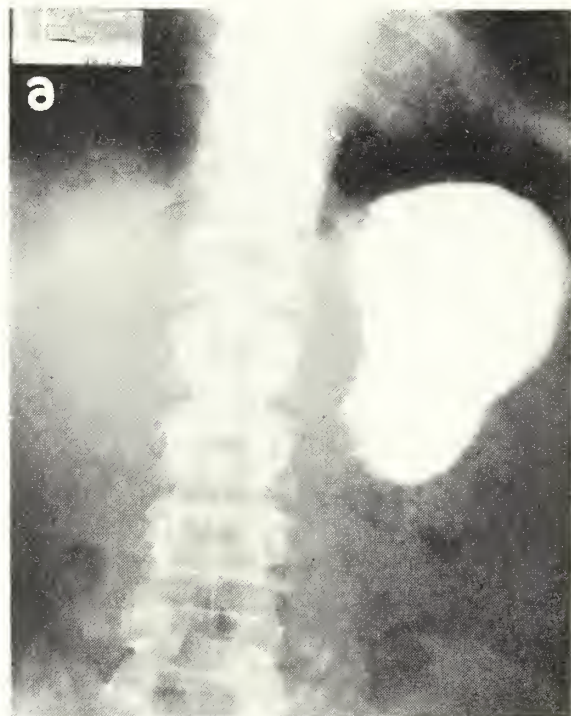


FIG. 1. Stomal obstruction following vagotomy, antrectomy with gastroduodenostomy.

operative day, re-exploration was done and marked narrowing of the stoma was found present. A dependent gastrojejunostomy was performed, and rapid recovery followed.

Comment. Stomal obstruction following end-to-end gastroduodenostomy may result from several factors. Perhaps faulty judgment in the selection of cases is the most important. If an ulcer of the posterior wall cannot be removed completely, and if any scar tissue is left behind on the posterior duodenal wall, it is perhaps safer to close the duodenal stump rather than attempt gastroduodenostomy. The selection of proper suture material is important. When the Billroth I method is chosen, it is imperative to utilize very fine suture material,

preferably 000 or 0000 catgut for the inner anastomotic layer, and the bites of tissue should be placed very close to the free edge of the gut wall. The outer layer of sutures should consist of very fine silk. If there is any discrepancy in the size of the opposing gastric and duodenal lumina, the antimesenteric border of the duodenum should be divided for one to one and one-half centimeters. The resulting stoma should admit one and one-half fingertips with ease (Fig. 2). If these points are considered, the inci-

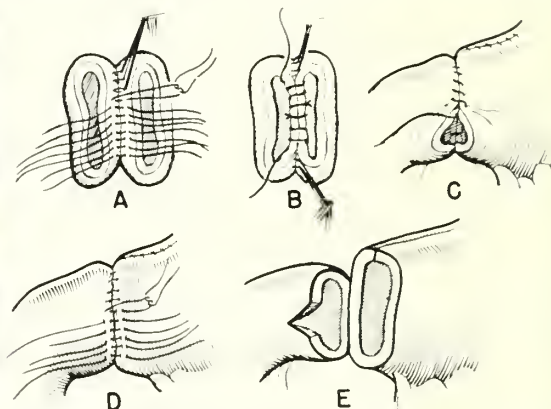


FIG. 2. (A) through (D) shows technic of performing end-to-end gastroduodenostomy. (E) shows the antimesenteric border of the duodenum divided to increase the size of the lumen.

dence of stomal difficulties should be indeed small.

Obstruction Following a Billroth II Anastomosis

Case 2. A 49 year old woman was admitted to the hospital with a 6 year history of duodenal ulcer. She had had repeated mild upper gastrointestinal hemorrhages. After adequate preparation vagotomy and antrectomy, with a retrocolic Hofmeister reconstruction, was done. Postoperatively she developed gastric retention which failed to respond to nonoperative measures. A gastrointestinal series revealed complete stomal obstruction.



FIG. 3. Complete stomal obstruction following vagotomy, hemigastrectomy with posterior Hofmeister reconstruction.

tion (Fig. 3). At a second operation she was found to have complete obstruction at the gastrojejunostomy site, with marked angulation of the afferent and efferent jejunal limbs. The anastomosis was dismantled, an end-to-end jejunojejunostomy done, and antecolic gastrojejunostomy performed. The postoperative course was prolonged and stormy, but the patient finally recovered.

Comment. The same principles of utilizing fine suture material and meticulous technic apply when performing a Billroth II anastomosis. In Case 2, it was apparent a second exploration that the gastric pouch had not been adequately delivered through the rent in the transverse mesocolon at the original operation. The mesocolon had been sutured to the gastric pouch very close to the gastrojejunostomy suture line. This prevented the afferent and efferent limbs of the jejunum from assuming a normal dependent position. Instead, they were angulated and taut so that some degree of obstruction was created in both limbs. This could have been prevented by delivering the gastric pouch through the rent in the mesocolon with suture of the mesocolon about the stomach pouch one to two centimeters above the gastrojejunostomy line of suture. To correct this type of obstruction, it is usually necessary to dismantle the anastomosis and reconstruct an antecolic gastrojejunostomy (Fig. 4). Persistent stomal obstruction following a Billroth II anastomosis creates a surgical problem of considerable magnitude, which is associated with a high mortality rate. However, when

faced with such a situation, in our experience it has usually proved best to carry out a definitive operative procedure as cited above, rather than resort to the threading of catheters through the afferent and efferent limbs of the anastomosis with hope of alleviating the obstruction. Of course, if the patient is in extremely poor physical condition, a feeding jejunostomy should be done as a preliminary procedure.

Marginal Ulceration Following an Inadequate Gastric Resection

Case 3. A 45 year old man was admitted to the hospital with severe epigastric and periumbilical distress. Past history revealed that 6 years prior he had undergone a gastric resection elsewhere for an obstructing duodenal ulcer. Following operation he did well for 2 years, at the end of which time the ulcer-type of pain recurred. A gastrointestinal series revealed that the patient had previously undergone a very limited resection of the distal portion of the stomach, and a marginal ulcer was demonstrated in the efferent jejunal limb approximately 2 cm. beyond the anastomosis (Fig. 5). An adequate gastric resection was then performed and there has been no recurrence of ulcer.

Comment. At present there are several operative procedures generally accepted for control of the ulcer diathesis:³ Vagotomy combined with antral resection, vagotomy coupled with a drainage procedure, adequate subtotal gastrectomy, and a segmental gastric resection as advocated by Wangenstein and State.

For gastric resection to be effective in preventing recurrent ulceration, at least

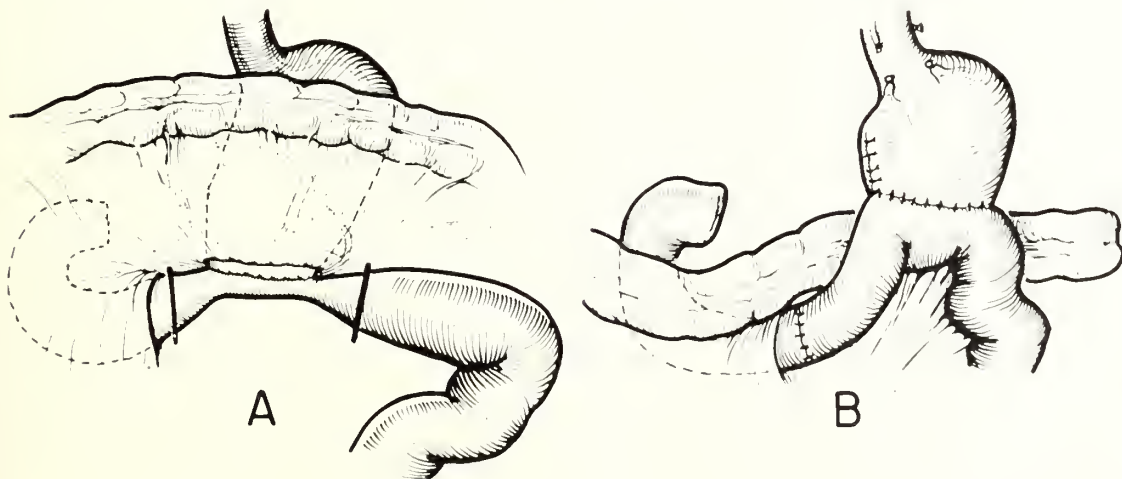


FIG. 4. (A) Obstruction at the stoma due to faulty suture of the gastric pouch to the edges of the rent in the transverse mesocolon.

(B) Correction of obstruction by dismantling the anastomosis and conversion to an antecolic gastrojejunostomy.



FIG. 5. Marginal ulceration in the efferent jejunal limb following an inadequate resection for duodenal ulcer.

two-thirds, or preferably three-fourths, of the stomach, including the antrum, should be removed. The concept behind the procedure is based upon the excision of a sufficient amount of acid-secreting tissue in order to reduce gastric secretions to a minimal level. It is readily apparent that this patient was originally subjected to an inadequate resection.

Recurrent Ulcer Following Simple Gastroenterostomy and Presenting as an Abdominal Wall Mass

Case 4. A 48 year old man entered the hospital with a hard, tender mass in the left upper abdominal quadrant. Past history revealed that 3 years prior a gastroenterostomy had been performed elsewhere for an obstruction duodenal ulcer. One year before admission the abdominal pain recurred, followed by progressive weight loss and periodic tarry stools. A marginal ulcer was detected on barium studies (Fig. 6), and overnight gastric secretion totalled 50.4 mEq/L. of free hydrochloric acid. Exploration revealed the presence of an antecolic gastrojejunostomy, with a large marginal ulcer which had penetrated into the anterior abdominal wall. A vagotomy,



FIG. 6. Perforated marginal ulcer following simple antecolic gastrojejunostomy performed for duodenal ulcer. Patient presented with a mass in the anterior abdominal wall. (Courtesy of C. V. Mosby Company—Foster & Carlson, Surgery 44: 1034, 1958.)

antral resection and Hofmeister reconstruction were done, along with excision of a portion of the anterior abdominal wall. The postoperative course was normal.

Comment. This case illustrates the hazards of treating an active duodenal ulcer by simple gastroenterostomy. The rate of recurrent ulceration following this procedure varies from 15 to 50 per cent. The presence of a tender mass in the abdominal wall as a manifestation of perforation of a marginal ulcer following an antecolic anastomosis is also of interest. Only a few such cases have been reported in the literature.¹ We have now had occasion to treat 2 such cases following simple antecolic gastrojejunostomy, and have likewise encountered a third case which followed an inadequate distal resection with antecolic gastrojejunostomy. The paucity of reports concerning this complication may in part be related to the fact that a retrocolic anastomosis is probably employed more frequently. The perforation

of a marginal ulcer into the transverse colon with subsequent fistula formation following a retrocolic anastomosis is well known.

Disruption of the Duodenal Stump

Case 5. A 56 year old man was admitted to the hospital with an obstructing duodenal ulcer. After adequate evaluation, he was subjected to vagotomy, antrectomy and a Hofmeister reconstruction. It was not deemed advisable to attempt a Billroth I reconstruction, as there was considerable edema and scarring about the duodenum. As a matter of fact, the duodenal stump was difficult to close, but it was thought a reasonably safe closure was obtained. Postoperatively, the patient did well for 3 days, but then developed upper abdominal tenderness, pain and temperature elevation, each of which increased during the next several days. The abdomen became distended and a plain film revealed a fluid level in the lesser omental bursa (Fig. 7). At exploration a large quantity of bile-



FIG. 7. Fluid level in the lesser peritoneal sac due to a leaking duodenal stump.

stained material was evacuated and a sump drain inserted. A duodenal fistula resulted, which finally closed after a prolonged hospital stay.

Comment. Disruption of the duodenal stump following a Billroth II type reconstruction is a dreaded complication, and on occasion will take place even in the hands of an experienced operator. It usually results from inadequate closure of a scarred and indurated duodenum. Obstruction of the afferent limb of the jejunum and acute postoperative pancreatitis may likewise be

predisposing causes. When the posterior duodenal wall is indurated and scarred, and in circumstances where the entire ulcer crater cannot be safely removed, it is usually advisable to fashion a long flap of anterior duodenal wall and buttress it against the posterior wall as described by Nissen. This is usually possible as the anterior wall of the duodenum is less frequently involved in scar tissue. However, when both walls are involved, it is perhaps wiser to suture a catheter into the duodenal stump as described by Welch. A duodenal fistula is accepted when this method is chosen, but the fistula usually closes promptly after the catheter is removed.

Internal Hernia Following Gastric Resection

Following simple gastrojejunostomy or gastric resection of the Billroth II type, in which either an antecolic or retrocolic anastomosis is established, internal rings are created through which a loop of intestine may subsequently herniate with the production of symptoms suggesting a high intestinal obstruction. With an antecolic anastomosis, one single large ring is created which may be a potential source of herniation; whereas, with a retrocolic anastomosis, two



FIG. 8. Postoperative obstruction due to internal hernia.

rings are thus established separated by the transverse mesocolon. From a study of reported cases,⁶ it is much more common for the herniation to occur through the lower ring of a retrocolic anastomosis in a right to left manner. The resulting symptoms may follow either one of two patterns. The onset of pain may be abrupt and severe with early operation being mandatory, and the involved intestine may show interference with its vascular supply. On the other hand, the symptoms may be insidious in onset, but usually progressive until complete obstruction ensues. This complication should be thought of in any individual who has undergone a gastrojejunal anastomosis with the later development of upper abdominal discomfort, followed by nausea and vomiting. The diagnosis may be confirmed by a

barium study of the upper gastrointestinal tract.

Case 6. A 36 year old man was admitted with upper abdominal discomfort, nausea and vomiting of several days duration. History revealed that 14 months prior he had undergone elsewhere vagotomy, antrectomy, with a retrocolic Hofmeister reconstruction for duodenal ulcer. Shortly after hospital discharge the patient developed upper abdominal fullness and discomfort, which progressed in severity over the following 14 months. This was associated with a 30 pound weight loss. On the present admission, gastrointestinal series showed obstruction of the afferent and efferent jejunal limbs a few inches below the gastroenterostomy stoma (Fig. 8). At operation an internal hernia was found, in which the efferent loop of the jejunum had herniated behind the afferent loop, producing complete obstruction. The involved loops were dilated, sacculated and atonic. In view of the character of the involved bowel, it was decided to dismantle the anastomosis, re-

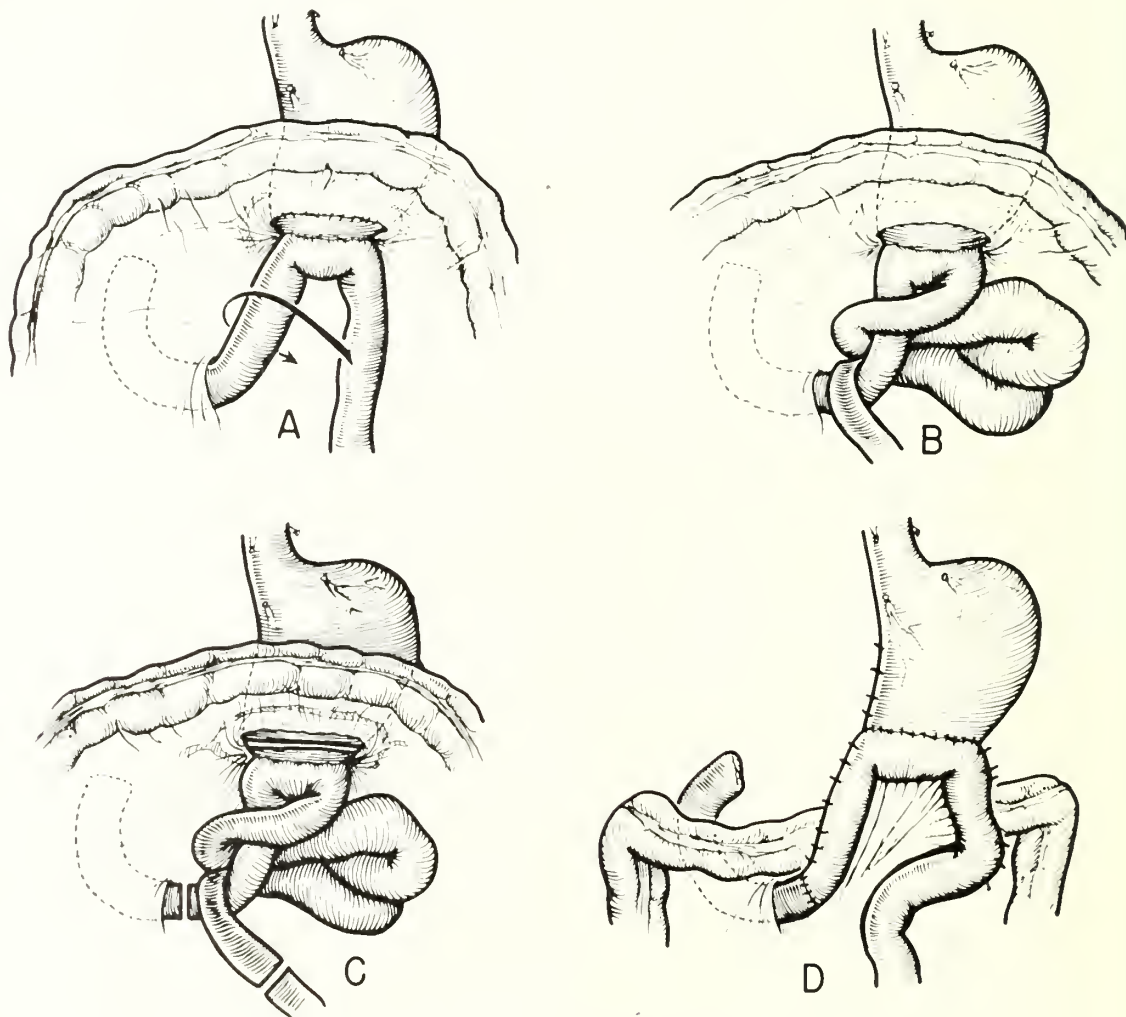


FIG. 9. (A) and (B) depict internal hernia occurring in right to left fashion.

(C) and (D) show resection of herniated jejunum with conversion to antecolic gastrojejunostomy. Rings have been closed.

sect the involved intestine and establish an antecolic gastrojejunostomy. The gastric pouch along the lesser curvature was sutured to the posterior parietal peritoneum in order to close the superior part of the large hernial ring, and the afferent jejunal loop was sutured to the posterior peritoneum above and below the site of the transverse colon (Fig. 9). The postoperative course was normal. The patient has had no further difficulty and has gained 40 pounds.

Comment. One is impressed by a review of the literature that this complication carries an exceedingly high mortality. Also, no doubt, internal herniation following gastrojejunal anastomosis occurs more frequently than is evidenced by the number of reported cases. During the past two years, 4 cases have been seen on our service. (Fig. 10).

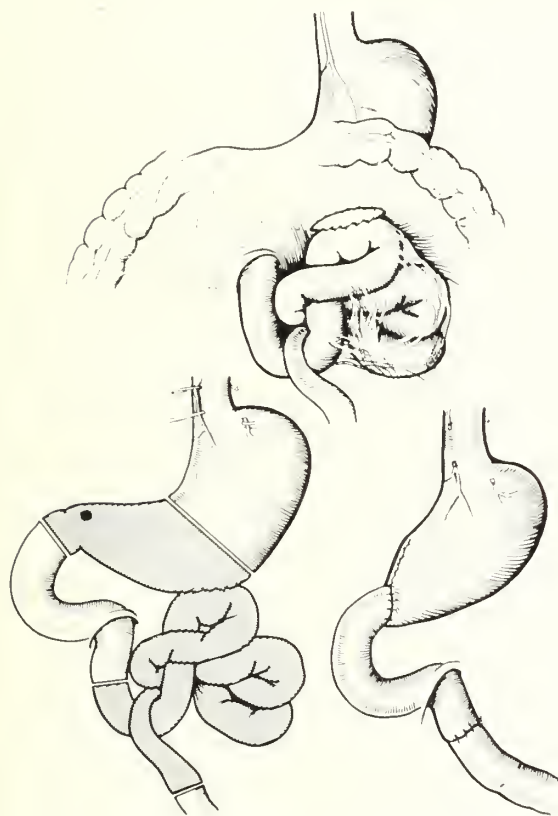


FIG. 10. Internal hernia following simple gastrojejunostomy performed for duodenal ulcer. The herniated bowel was excised, and vagotomy, antrectomy with gastroduodenostomy done. A small marginal ulcer was present in the excised jejunum, as well as an active ulcer in the duodenal bulb.

It is important that this condition be kept in mind in any postgastrectomy patient who presents with abdominal discomfort, nausea and vomiting. The complication may take place in the immediate postopera-

tive period, or may occur weeks or even years following gastric surgery. The definitive operative treatment necessary to alleviate the obstruction depends upon the findings observed at laparotomy. If the obstruction occurs during the early postoperative period, simple reduction of the hernia and closure of the ring with interrupted silk sutures may suffice; however, if viability of the bowel is impaired, resection, of course, becomes necessary. In the 3 cases encountered by us, each followed a retrocolic anastomosis, and in each instance the obstruction occurred months or years following the original gastric operation. The herniated bowel in each case was thinned out, sacculated, dilated and atonic. Resection was thought to be the preferred treatment in each of the 3 cases, and a new gastrojejunal anastomosis was established anterior to the transverse colon. Care was taken to suture the gastric pouch and afferent jejunal limb to the posterior abdominal parietes. A few interrupted sutures were also used to anchor the efferent jejunal loop. Obliteration of the potential hernial rings has not been used as a routine measure by most surgeons. However, since encountering these complications on our service, we have given more consideration to their routine closure.

The Clinical Significance of Retained Antral Tissue Following Gastric Resection

It is generally agreed that for gastric resection to be effective in preventing recurrent ulceration, complete removal of the gastric antrum must be an integral part of the operative procedure. The importance of the antral mucosa as the sole source of the hormone, *gastrin*, which serves to stimulate the acid-bearing cells of the gastric fundus, was first described by Eddins. The clinical observations of Von Eiselsberg demonstrated that even small portions of retained antrum are capable of stimulating fundic gland secretion. The exclusion procedure devised by Finsterer and Devine, in which a small portion of the distal antrum was left intact adjacent to an inflamed duodenal ulcer, was soon found to be associated with a high rate of recurrent ulceration. Pearse showed in the experimental animal that a 75% gastric resection, with a small

portion of the antrum intact but excluded, offered very little, if any, protection against recurrent ulceration induced by histamine. Clinical evidence supporting the role of the retained or excluded antrum in the perpetuation of ulcer disease has been stressed in numerous reports.

It is of further clinical interest that within recent years Bartlett and Waddell⁶ have utilized vagotomy, sleeve resection and antral exclusion in the treatment of duodenal ulcer. The hazards of this procedure are already evident, for over a three-year follow-up 9 recurrent ulcers have occurred among a group of 153 patients.⁶

The mechanism of ulcer recurrence following antral exclusion is thought to result from the regurgitation of alkaline, biliary, pancreatic and internal juices into the excluded antral pouch via the afferent jejunal loop. It has been clearly established that the antral mucosa is stimulated when bathed in an alkaline medium and the subsequent release of *gastrin* in turn stimulates directly the acid-bearing cells of the fundus.

During the past several years, 3 patients have been encountered who developed marginal ulcers following gastric resection done elsewhere, and in each instance at our exploration a small cuff of antral tissue was found intact near the duodenum. It should be mentioned that 2 of the patients had undergone a rather extensive gastric resection and one patient had been subjected to multiple re-resections plus a complete vagotomy.⁷

Case 7. A 48 year old man was admitted, who 7 years previously had first undergone simple closure of a perforated duodenal ulcer. Several months later he underwent a massive hemorrhage and was subjected to a 50% gastric resection of the Billroth II type. He then developed a marginal ulcer and underwent vagotomy and a second resection. Subsequently, another marginal ulcer occurred and at a subsequent operation a residual vagal fiber was found and again resection of the gastric pouch was done. A few months later another marginal ulcer developed, which perforated into the transverse colon. A block excision of the fistula was done and he was subjected to another resection so that only approximately 10% of the stomach remained. Up to this time the surgeon was unaware that a small remnant of antral tissue had been left behind at the time of the first resection. The patient then developed the fourth marginal ulcer and was referred to us for treat-

ment. Review of the pathologic specimen from the original resection showed no evidence of duodenal tissue present. At our institution an insulin test showed evidence of complete vagotomy, but 20 clinical units of free hydrochloric acid was obtained with histamine. At operation, a huge marginal ulcer was found present. The pancreas showed no evidence of tumor, but a very small 1.5 cm. cuff of antrum was found attached to the duodenum. This was removed and the duodenal stump closed. No attempt was made to remove the marginal ulcer. Microscopic study of the specimen revealed the presence of antral mucosa. Following this relatively simple operative procedure, the marginal ulcer healed completely and there has been no recurrence of ulceration during a two and one-half year follow-up (Fig. 11).

Comment. It is always important, when operating upon a patient with a marginal ulcer following gastric resection, to inspect the area of the duodenal stump for the possibility of retained antral tissue. In addition, a very thorough inspection should be made of the entire pancreas with the hope of occasionally finding a hyperfunctioning adenoma as described by Zollinger and Ellison. The case under consideration serves as a beautiful clinical experiment depicting the importance of a small remnant of excluded antrum as a potent stimulus for acid secretion. It is of additional interest here that even complete vagotomy and extensive gastric resection failed to afford protection against ulceration.

Limited Gastrectomy with Roux-en-y Gastrojejunostomy: An Unphysiologic Procedure

Case 8. A 37 year old man was admitted with a several year history of abdominal pain and melena. Two years prior he had undergone elsewhere a 50% gastrectomy, without vagotomy, for duodenal ulcer. Abdominal pain continued, increasing in severity, and recently the patient passed tarry stools. Gastrointestinal series showed no definite evidence of marginal ulceration. Hemoglobin was 9.7 Gm. and the stools were positive for occult blood. At operation the patient was found to have previously undergone an estimated 50% distal gastric resection. A marginal ulcer was found at the gastrojejunal stoma. Further exploration revealed that the proximal jejunum had been completely divided at the previous operation. The distal limb had been closed, and just below the point of closure the side of the distal limb had been anastomosed to the open cut end of the gastric pouch. The proximal jejunal limb had been sutured side-to-side to the distal limb approximately 90 cm. below the gastrojejunostomy site. In essence, the patient had been subjected to a modified Mann-Williamson procedure, which

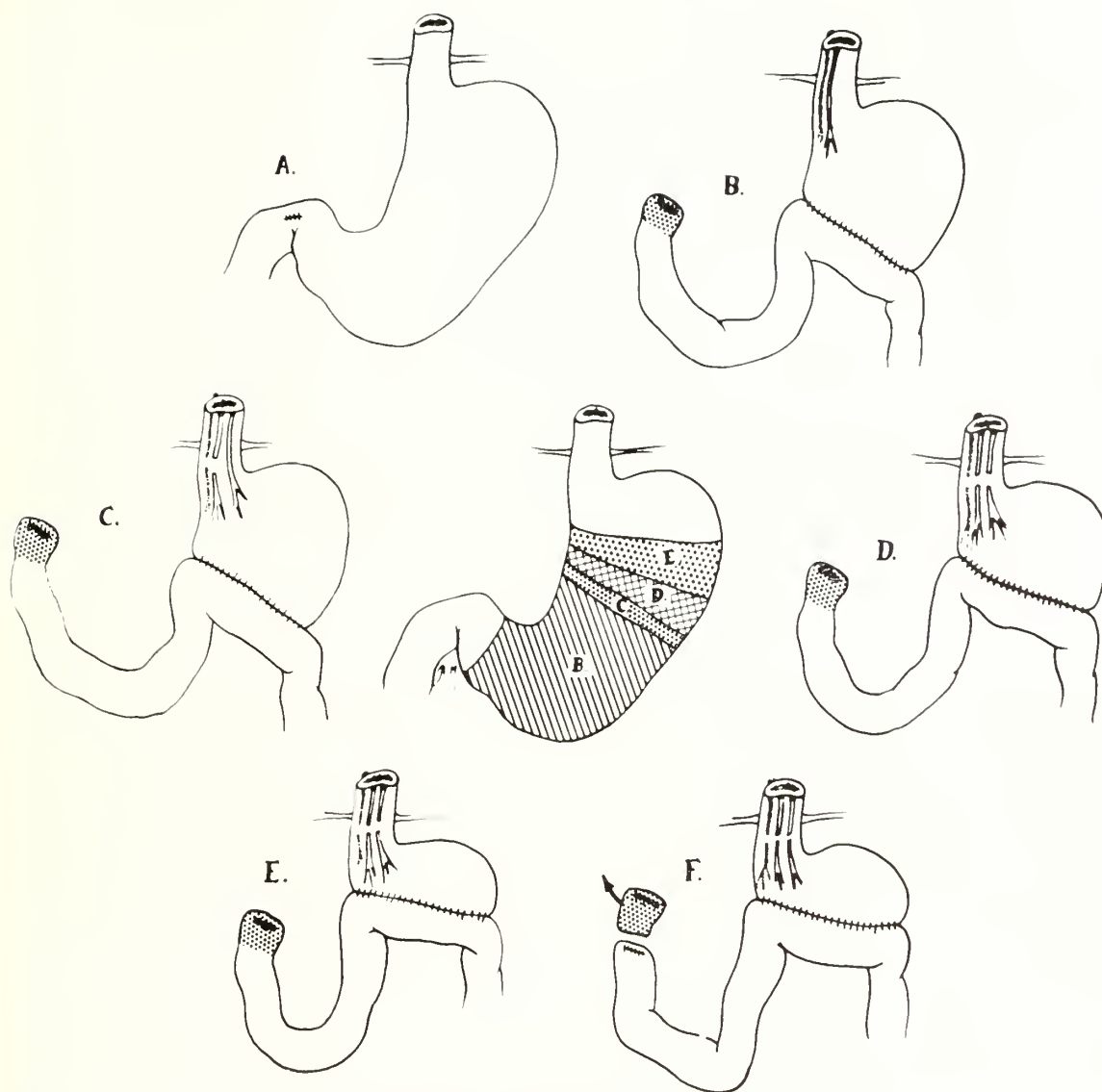


FIG. 11. (A) through (F) shows sequence of multiple operative procedures. (F) resulted in a complete cure. (Courtesy of J. B. Lippincott Company, Scott and Herrington, *Ann. Surg.* 151:181, 1960.)

is utilized to produce ulceration in the experimental animal.

The pancreas was normal at operation and no antral tissue was found attached to the duodenal stump. The jejunojejunostomy was taken down, the stoma dismantled, and a vagotomy done. Continuity was established using a Billroth II type anastomosis. The patient has had no further abdominal pain and there has been no recurrence of the ulcer (Fig. 12).

Comment. This case represents a faulty understanding of the concepts of gastric physiology. The patient was subjected to an inadequate resection combined with shunting of the biliary and pancreatic juices away from the gastrojejunostomy site. The operation performed by the surgeon, with the aim to cure the ulcer diathesis, was, in

reality, an operative procedure which has proven to be extremely effective in producing ulceration in the experimental animal. In performing a gastrojejunostomy with associated gastric resection, it is desirable to select a site on the jejunum close to Treitz's ligament so as to utilize fully the buffering effect of the biliary and pancreatic juices on the anastomotic site. Many believe that the neutralizing effect of these secretions at the anastomosis is of prime importance in affording protection against recurrent ulceration.

Gastroileostomy

The inadvertent anastomosis of the stomach to a segment of ileum is fortunately an

LIMITED GASTRECTOMY - ROUX-EN-Y-GASTROJEJUNOSTOMY

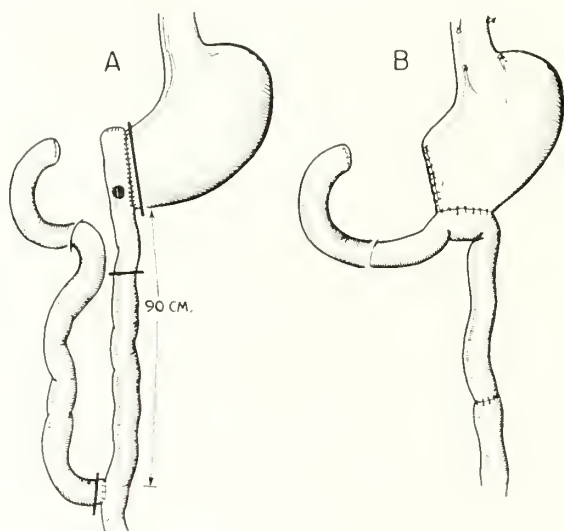


FIG. 12. (A) Marginal ulcer following the unphysiologic operation of limited resection and Roux-en-Y gastrojejunostomy.

(B) Correction by vagotomy, complete antral resection with short loop gastrojejunostomy.

uncommon surgical error.⁵ Through 1959, approximately 89 such cases have been recorded in the surgical literature. It is apparently more common for this error to be committed when the surgeon performs a simple gastroenterostomy than when an associated gastric resection is carried out.

When the surgical error occurs in conjunction with gastric resection, the patient usually complains of profuse diarrhea during the early postoperative period. This is associated with progressive weight loss and physical deterioration. If only a gastroileostomy is done without gastric resection, symptoms at times may be minimal indeed, since a patent pylorus may channel the bulk of the ingested food through the entire length of the enteric canal. If pyloric obstruction should, however, subsequently develop incident to further ulcer activity, diarrhea, progressive weight loss, and emaciation usually follow.

Within the past 24 months we have had occasion to treat one patient who underwent elsewhere a limited gastric resection with gastroileostomy for duodenal ulcer.

Case 9. A 58 year old farmer was admitted in an unconscious state with convulsive seizures of 24 hours duration. History obtained from the family revealed that 2 years before he had undergone surgical closure of a perforated duodenal ulcer. Eight months before admission he developed duodenal obstruction and was subjected to

subtotal gastric resection. He fared poorly following operation and had marked weight loss and diarrhea, with nausea and vomiting. Two months before admission another exploration was done and an alleged enteroenterostomy performed. His course continued progressively downhill with profuse diarrhea, fecal belching and weakness. Cortisone was started, and later edema of the extremities and loss of sphincter control occurred. Just prior to admission, generalized convulsions occurred, accomplished by loss of consciousness.

Examination revealed an asthenic, cachectic, unconscious man with marked muscle wasting. The skin was sallow, dry and loose. Weight was 80 pounds. An upper abdominal scar was present and no abdominal masses were palpable. A severe metabolic alkalosis was found present. The potassium was 2.2 mEq/L. and the T.S.P. was 3.6. Serum calcium was 7 mg.% and Hgb. was 8.8 Gm. PCV. was 30. Fasting blood sugar was 24 mg.%.

The patient was treated with large doses of intravenous calcium and potassium. Electrolyte imbalance was corrected and blood volume restored. On this regimen his status improved, and after several days he became mentally alert. A gastrointestinal series was done, which showed that a limited resection of the distal stomach had been performed and barium was seen to enter the cecum quite readily, suggesting the presence of a gastroileal anastomosis (Fig. 13).

At operation, it was found that approximately 20% of the distal stomach had been resected at the previous operation. An anastomosis had been carried out between the gastric reservoir and a



FIG. 13. Barium in the stomach enters the cecum almost immediately, suggesting the presence of a gastroileal anastomosis.

loop of ileum approximately 35 cm. proximal to the cecum. In addition, an ileoileostomy had been performed below the gastroileostomy stoma. The ileoileostomy and gastroileostomy were taken down, a vagotomy was done along with resection of the distal one-half of the stomach. Continuity was re-established by an end-to-end gastroduodenostomy (Fig. 14). There was no evidence of retained antral tissue present, and the pancreas appeared normal. Examination of the pathologic specimen revealed an ulceration at the gastroileal junction.

The postoperative course was complicated and stormy, but recovery finally took place. Four months following operation he had gained 50 pounds in weight and has since continued to remain symptom-free during a one and one-half year follow-up.

Comment. This patient serves as an outstanding clinical example depicting the marked weight loss, muscle wasting and generalized deterioration that follows gastroileostomy when associated with subtotal gastrectomy. The appearance of such a patient would strongly suggest Addison's disease or pituitary insufficiency, if one were not familiar with the symptomatology dating from the previous operation for duo-

denal ulcer. Profuse diarrhea is perhaps the most disturbing feature associated with gastroileostomy, and the by-passing of the greater portion of the absorptive area of the small intestine accounts for the hypokalemia and hypocalcemia which are most always present. The reduced blood sugar level may be explained by the depleted store of liver glycogen. Surprisingly, the appetite of such patients usually remains good. Abdominal pain is not an early feature associated with gastroileostomy, but usually appears later with the development of stomal ulceration. The fecal belching and vomiting are due to the regurgitation of cecal contents into the gastric pouch. The anemia is in part associated with the general physical deterioration, or else may be accounted for by hemorrhage from a recurrent ulceration.

Barium studies of the upper gastrointestinal tract are usually helpful in establishing the diagnosis. Serial films may be of benefit on occasion. It is not uncommon to confuse the radiographic picture with that produced

GASTRECTOMY - GASTROILEOSTOMY - ILEO-ILEOSTOMY

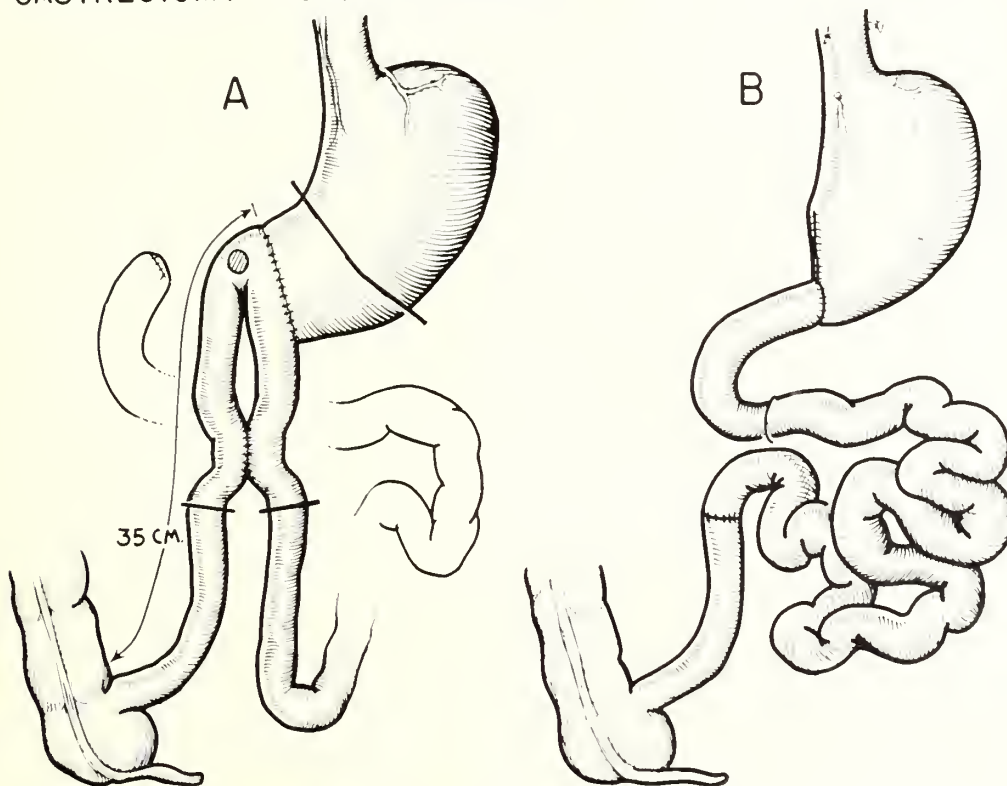


FIG. 14. (A) Limited gastrectomy, gastroileostomy and ileoileostomy performed for duodenal ulcer. Marginal ulcer present.

(B) Correction by ileal resection, vagotomy, antrectomy with Billroth I reconstruction.

by a gastrojejuno-colic fistula. However, the history relating to the onset of symptoms immediately following operation should suggest the presence of a gastroileal anastomosis.

It is of interest that the patient under consideration was explored again six months after undergoing gastroileostomy and the technical error apparently was still not recognized. Likewise, it is indeed unfortunate that the patient suffered metabolic derangements to the point of producing unconsciousness with convulsive seizures before the correct diagnosis was arrived at.

Not only is it important for all clinicians to be familiar with the clinical picture produced by inadvertent gastroileostomy, but it should behoove every surgeon to identify carefully and mark the area of the ligament of Trietz before performing gastroenteric anastomosis. Before the abdomen is closed, the anatomic arrangement should again be thoroughly examined.

Summary

The complications of duodenal ulcer constitute problems of paramount surgical importance.

Errors in the surgical management of these complications continue to take place in a certain number of cases.

The errors involve not only surgical judgment, but errors in surgical concept and surgical technic as well.

Illustrated cases are cited which describe

briefly errors in technic and errors arising from a lack of appreciation of the physiopathology of duodenal ulcer.

Methods showing the correction of these errors are cited.

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STAFF CONFERENCE

John Gaston Hospital*

Encephalitis

DR. R. A. UTTERBACK: We want to present this morning two patients who characterize a group of patients we frequently see here in the John Gaston Hospital. It seems to us this is a group that may frequently be misdiagnosed or misunderstood. These patients present themselves with a story of headache, stiff neck, and sometimes gastrointestinal upset. Very frequently this illness clears after a few days and no specific diagnosis is made. Sometimes it goes on to a much more profound disease process with cranial nerve involvement, convulsive seizures, lethargy, alteration of consciousness, even to death. We have two patients to present and then want to make comments about a third one. Dr. Salky, will you present our first?

DR. NATHAN SALKY: The first case this morning is that of a 48 year old colored woman who was admitted on March 27 in a comatose state. At that time only a very inadequate history could be obtained from her mother. Apparently the patient was thought to be in her usual good health until the afternoon of admission when she was seen to collapse in the yard. By the time her mother reached her she was unconscious. The mother stated that her eyes rolled back and she had clonic movements of all four extremities. She remained in this state for several hours, was brought to the John Gaston Hospital and admitted.

The past history and system review as obtained from the mother was remarkable only in that the patient had had intermittent ankle swelling since last fall, and in the two weeks before admission had complained of frequent headaches. There was no known fever, chills, nausea, vomiting, previous seizures or preceding trauma. She had never before been hospitalized, and had never been pregnant. At the time of admission the patient was unresponsive even to painful stimuli. She had almost continuous convulsive movements of the left shoulder and left arm, and at times these would progress to a generalized clonic seizure.

The temperature was 102° rectally, pulse 110 and regular, respirations 26 and blood pressure 130/80. A bruise was noted about the left eye. The pupils were small, equal, and reacted well to

light. The fundi could be seen with some difficulty and were not remarkable; specifically the discs were not abnormal. The neck was supple. Examination of chest, heart, and abdomen revealed no abnormalities. No gag reflex could be obtained and the patient was noted to be handling her secretions poorly. The deep tendon reflexes were present and slightly more active on the right side. No pathologic reflexes were demonstrated.

The initial laboratory work showed that the blood count, urine, BUN., blood sugar, and sickle-cell preparations were all within normal limits. The initial lumbar puncture revealed an opening pressure of 190 mm. H₂O, a closing pressure of 110 mm. The fluid was "ground glass" in appearance and contained 210 white blood cells/cu.mm., 70% of which were lymphocytes. The sugar was 38, and the protein 49 mg.%. Later we found that the STS was nonreactive in the spinal fluid although her serum VDRL was reactive at two dilutions. Culture showed no growth. The patient was treated supportively and a tracheotomy was performed soon after admission. She was given Dilantin, 100 mg. intramuscularly every 6 hours, along with barbiturates in small doses to control the seizures. Later a Levine tube was passed and he was fed by this means. She remained comatose for several days, with intermittent seizures. These would sometimes involve any extremity and be short-lived, but at other times would become generalized and prolonged. On April 1 she finally aroused and would respond to questioning; however, she has remained disoriented and confused. She has continued to have intermittent, mild, focal convulsive seizures. Her temperature reached a normal level 2 days after admission and has remained normal since that time. The neurologic examination now shows no remarkable change; there is slight spasticity of all extremities and the right pupil is a little larger than the left.

DR. UTTERBACK: I suppose because we have had so many sad experiences with patients who have had sudden onset of symptoms and were originally suspected of having an infectious process, but later were found to have vascular disease, we have fallen into a pattern of doing arteriograms on these patients as soon as possible. That is the principal x-ray study that was done here, is it not?

DR. SALKY: The history was very poor, but it seemed that her illness had a very sudden onset. She had a contusion about her left eye. We thought it advisable to get these arteriograms. Dr. Carroll, would you say something about them?

DR. DAVID S. CARROLL: The chest x-ray was taken at a rather short distance in the supine position by portable technic;

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therefore, the heart is somewhat magnified. Most likely the heart is not enlarged. The lungs are clear. A tracheotomy tube is in place. Bilateral carotid angiograms show good filling of the internal carotid arteries and their branches on both sides. The anterior and middle cerebral arteries are in normal position on both sides and show no evidence of arterial block. Both anterior cerebral arteries are noted to be filled with both the right and the left sided injection. Mild general arteriosclerosis is noted.

DR. UTTERBACK: Blood specimens were submitted for complement fixation studies, but I presume they are not back as yet. This first patient is still so ill that we thought it wiser not to bring her down here to show you, but the second patient is here. We might go ahead and discuss him.

DR. SALKY: The next patient is an 18 year old colored male who was admitted on March 28 because of convulsive seizures that occurred the night before admission. Apparently his illness began about 2 weeks before this, when he noted the onset of what he thought was influenza. This was manifested by coryza, sore throat, and general malaise. Later he developed fever, chilly sensations, and a productive cough. On March 27 he complained of a very severe headache and felt that his neck was quite stiff. That day his father noted that he didn't seem as alert as usual. He wanted to sleep most of the day, and there was some indication of mental confusion on that day. Later that evening he suddenly became unconscious and had what his family described as generalized clonic movements of all four extremities. He had four such seizures in a row with a short period of sleep after each one. After the last seizure, during which he was incontinent of urine, he was much more somnolent and also more confused. The next morning nausea and vomiting appeared, and he was admitted to the hospital.

At the time of admission the patient appeared quite dehydrated and acutely ill. The temperature was 102° F. He was very lethargic and seemed slightly disoriented. The neck was very stiff, but the remainder of the physical examination and a careful neurologic examination revealed no abnormalities.

The initial laboratory work showed a white blood count of 10,350/cu.mm., with 64% segmented neutrophils, 30% lymphocytes, and 6% atypical monocytes or lymphocytes. These are the cells which we have under the microscope now and which Dr. Dugdale will comment about later. The urine, STS and sickle-cell preparation were negative. The lumbar puncture showed an opening pressure of 190 mm. H₂O and a closing pressure of 145 mm. There were 380 white blood cells per cu. mm., of which 55% were lymphocytes and 45% were neutrophils. The sugar was

50 and the protein 57 mg.%, serologic tests for syphilis were negative, and culture revealed no growth. The patient was initially treated symptomatically with bed rest and a moderate amount of intravenous fluids because of dehydration. He received aspirin for his fever and was given Dilantin, 100 mg. every six hours to prevent seizures. He responded rapidly and by the next morning looked and felt much improved. He became afebrile on the second hospital day and has continued to improve since that time. The only complaint at present is some rather mild headaches. The repeat lumbar puncture on April 4 showed 82 white blood cells/cu. mm., 100% of which were lymphocytes.

I think we might mention at this time that this boy's 15 year old sister developed a similar illness several days after he became ill. She was seen in the emergency room one night, where it was noted that she had headache, temperature of 102° F., stiff neck, and a slightly injected pharynx. A lumbar puncture showed 10 lymphocytes/ cu. mm. She was later admitted to the hospital for observation, did quite well and never did develop a full encephalitic picture. This patient's blood smear, however, showed the same atypical cells that her brother's did. In fact, she had many more of these "virucytes" than he did. Our patient is here with us.

DR. UTTERBACK: Sit up for us, please, and tell us how you are getting along. Do you feel ill now? Are you sick in any way?

PATIENT: No, sir.

DR. UTTERBACK: Does your head ache now?

PATIENT: Only hurts at night.

DR. UTTERBACK: (Checking neck flexion) Does that hurt at all now?

PATIENT: No, sir.

DR. UTTERBACK: Does the light bother your eyes?

PATIENT: No, sir.

DR. UTTERBACK: In other words you are just about well?

PATIENT: Yes, sir.

DR. UTTERBACK: Dr. Salky, what was the date of the last seizure?

DR. SALKY: The night before admission, March 27.

DR. UTTERBACK: Then he is virtually asymptomatic now since the 29th.

These two patients demonstrate an illness that occurs in our population more frequently than is generally realized—an encephalitis or meningoencephalitis which has as its etiologic agent a virus. Both of these patients had transient elevation of temperature, indicative of an infectious process, but

not the fulminating course with high temperatures and purulent spinal fluid that we usually associate with the bacterial infections. We thought it might be well to review with you the various agents that produce virus meningoencephalitis and say a little about how they are identified and how they should be handled.

In the first place I would like to list on the board for you some of the infectious agents that we presently recognize as producing this picture:

Equine encephalitis (Eastern and Western)

St. Louis encephalitis

ECHO group

Coxsackie

Mumps

Poliomyelitis

Herpes simplex

Lymphocytic choriomeningitis

Perhaps the old standbys that you all know about are Equine and Saint Louis encephalitis viruses. These have been known for a long time and we have complement fixations for them, but actually we very seldom actually identify either one of them.

The virus of herpes simplex is occasionally responsible for an aseptic meningitis. It is very rarely identified as a cause of encephalitis. It is interesting to know that in any population a lot of people will have antibodies for herpes simplex. The presence of a positive titer is generally not considered significant unless it rises to more than 1:64. So many people have "fever blisters"; in this way they become partially immune.

The Coxsackie virus originally was thought to be responsible only for painful muscles and inflammation of the pleura; the involvement of the nervous system was not recognized. Since about 1954 we have become aware that meningeal irritation frequently accompanies this infection, and the Coxsackie virus has been isolated from the spinal fluid.

ECHO stands for a group of viruses—something like thirteen different serum types—there may be more than that. These belong to the general category of "entero" viruses. The E indicates "enteric"; C comes from "cytopathogenic"; H and O stand for "human" and "orphan." They are fre-

quently responsible for a syndrome of malaise, muscular weakness and aseptic meningitis.

I would like to point out that these polio viruses are sometimes responsible for a much more diffuse illness of the nervous system than we have perhaps been led to believe. Poliomyelitis is primarily a disease of the cord and medulla, and the polio virus primarily attacks the anterior horn cell, but it does not always spare all other parts of the nervous system. In patients who have been diagnosed clinically as having meningoencephalitis, the polio virus has sometimes been identified as the only one with a rising titer; thus we have to assume that it can be responsible.

Lymphocytic choriomeningitis is another clinical syndrome that we recognize as rarely responsible for meningitis; even more rarely for encephalitis. The virus reservoir is believed to be the house mouse.

Mumps I put near the bottom of the list, but not by any means because it is uncommon. In a study recently done out in California,¹ some 1400 patients who had the diagnosis of central nervous system virus infection were studied for antibody titers. About 6% actually had a fourfold rise in titer for mumps. Next to the polio virus this was perhaps the most common single virus producing meningoencephalitis.

Now to return to the laboratory material we accumulated on these two patients—notice that in both of them there was originally a spinal fluid cell count significantly and yet not greatly elevated: 210 white cells, 380 white cells. Those definitely imply an inflammatory process in the nervous system, but one couldn't say from that alone whether this was even an infection. With these sugar contents of 38 and 50 we would suspect this was not a bacterial infection. Again the fact that the cells were principally lymphocytes on two occasions speaks for a less virulent process than bacteria usually produce. Incidentally, we feel it is important to do a series of spinal fluid examinations in situations like this. A single examination may give misleading information about a bacterial infection that had been modified by antibiotics given before we saw the patient. Also, the infectious process may begin in a milder fashion

and later become much more virulent. In these two patients the second examinations a few days later showed persistent lymphocytic pleocytosis—98% lymphocytes in the first and 100% lymphocytes in the second patient. This fairly well assured us that these patients had virus infections which were subsiding.

Dr. Mackey has a lot of experience with infections of this sort in children and there are special problems in dealing with encephalitis in children. Perhaps he will add to our discussion.

DR. RAY MACKEY: The central nervous system involvement in children frequently has a more abrupt onset clinically, possibly because the usual prodromes in adults are obvious in children. They usually show only irritability and lethargy. Indeed a subjective history frequently cannot be obtained. In children distinct neurological signs seem to be less frequent than in older individuals and have to be more carefully looked for.

Possibly related to the relative immaturity and electrical instability of the cortex of infants and children, convulsive seizures appear to be a more common manifestation of acute encephalitis in the younger group than in adults. This is complicated by the fact that fever alone is sometimes regarded as the cause of a child's convulsive seizure when actually a viral involvement of the central nervous system has taken place.

The most common problem and at times a very difficult one, is the differentiation of bacterial and viral meningitis. This is compounded by the higher rate of bacterial meningitis in this age group, the relative lack of inflammatory response or clinical evidence of illness in small infants with bacterial meningitis, and the relatively more fulminating quality of bacterial meningitis in children. Here the illness requires differentiation and treatment within a matter of hours. Antibiotics are more extensively used in the pediatric population, and correspondingly the problem of encephalitis *vs.* partially treated bacterial meningitis is a frequent one. The clinical condition of the patient, a neutrophilic pleocytosis in the peripheral blood, a persistent spinal fluid neutrophilic pleocytosis above 1000

cells/cu. mm., protein elevation, depression of the sugar content in the spinal fluid and elevated spinal fluid pressure are all helpful in indicating bacterial disease untreated or partially treated. Unfortunately none of these criteria are absolute. The initial spinal fluid pleocytosis in viral diseases may be neutrophilic, and on rare occasions may be unusually heavy, ranging up to several thousand cells/cu.mm. On the contrary, spinal fluid glucose on rare occasions may not fall with extensive pleocytosis due to bacterial meningitis, at least in the early phases of the disease. These variables indicate the value of repeating lumbar punctures. The proper evaluation of the spinal fluid glucose requires a corresponding check on the blood glucose, since there may be elevation of the blood sugar as a part of the nervous system disturbance. The spinal fluid glucose should be at least half the blood glucose. In the evaluation of a partially treated meningitis, a careful examination of the Gram-stained sediment by a trained observer can be very helpful, since the bacteria can sometimes be seen and partly identified although they fail to grow on culture. In any case previously treated with antibiotics, where it is impossible to be sure of the exact nature of the infection, broad coverage antibiotics for purulent meningitis should be given.

The demonstration of virus particles by the fluorescent antibody technic is a relatively new diagnostic tool which can establish the etiologic nature of the infection fairly quickly on occasion. A more recently described test of a similar nature for the identification of bacterial infections promises to be an even more valuable tool.

Another differential point with respect to encephalitis in infants and children is that the initial symptoms may be primarily gastro-intestinal, with pain and spasm of a severe nature. This may lead one to suspect an intra-abdominal condition such as appendicitis in the older child or intussusception in the younger child. In any child being considered for surgical exploration, where the abdominal pathology is not well defined by barium enema, palpation or otherwise, it may be prudent to examine the spinal fluid preoperatively. This seems especially important in view of the deleterious

effects which a prolonged ether anesthesia may have on the encephalitic process.

An encephalitis, like other acute central nervous system diseases, by its effects on the hypothalamus, may give rise to considerable elevation of the blood glucose. Occasionally this may rise to the range of 250-300 mg.-% and be associated with glucosuria. It is understandable that an individual with these findings might be considered to be in acute diabetic acidosis and given insulin. Insulin given to a patient with acute encephalitis is likely to produce a precipitous fall in blood glucose to hypoglycemic levels, with cerebral damage from that condition added to the inflammatory disease. Such damage may produce irreversible coma and shock which eventually prove to be fatal. The important differential point is that there is no acidosis in the blood or acetone in the urine, such as is characteristic of true diabetic coma.

Other conditions which commonly need to be considered in the differential diagnosis of encephalitis, in addition to acute purulent meningitis, are tuberculous meningitis, fungus infections of the central nervous system such as cryptococcosis (torulosis), brain abscess or abscess in the subdural or epidural spaces, thrombosis of the venous sinuses and aseptic meningitis associated with inflammation in skull or sinuses adjacent to the brain. Lead encephalopathy, which frequently develops in a rather fulminating fashion, and other toxic encephalopathies also need to be kept in mind. Thus it is essential to inquire about a possible history of exposure to tuberculous infection, pica, recent infections in the sinuses, middle ear or elsewhere in the body (which might lead to abscess formation or an aseptic meningeal reaction). Tuberculous or fungus infections are suggested by significant elevation in the pressure and proteins of the spinal fluid along with depression of glucose and chloride content. Torula infection should be suspected and looked for by making india ink preparations of the spinal fluid sediment and by obtaining fungus cultures of the spinal fluid, in any patient presenting with meningeal reaction who is generally debilitated or has tumorous involvement of the lymphatic or reticulo-endothelial system. The primary intracranial tumors of child-

hood, the majority of which are posterior fossa in location, are not likely to be confused with an acute encephalitis because of their chronic and progressive course of increasing intracranial pressure and cranial nerve and cerebellar involvement. In an acute encephalitis, because of the nature of the signs or course of the disease, it may at times seem necessary to perform contrast studies such as arteriogram or pneumoencephalogram, to rule out the possibility of a space occupying lesion. Such studies, especially the latter, sometimes increase the severity of an acute encephalitis, and for this reason they should be most carefully considered, and done only when a mass lesion is strongly suspected.

It is not possible at this time to consider all the residuals of encephalitis, but the most important ones ought to be mentioned. There may be areas of injury and scarring of the cortex which become electrically active and give rise to symptomatic seizures after a latent interval of six months to a year or more. Unrecognized or occult encephalitic processes occurring during childhood infections may be one cause for the large number of unexplained focal seizures which we see in childhood. In any child who has had a fairly severe episode of encephalitis, there may be a prolonged recovery period of three to six months during which time the symptoms are mainly those of irritability, lack of the usual childhood energy, and easy fatiguing. Also, in a certain number of children, it will become obvious as they mature that there is a delay in the acquisition of motor abilities, in speech development and in intellectual development, all of which is a residual of the encephalitis. This is in contrast to adults in whom the defects are usually quite obvious in the early stages of recovery. At times, in these children who have sustained diffuse cerebral injury, the manifestation of defects may be in terms of behavior and personality—a commonly recognized syndrome is that of hyperactivity, impaired attention span, and impulsive and destructive behavior. These defects are particularly striking and likely to be a problem when the language areas of the left hemisphere are involved.

One would think that such scarring or

disturbance of function in the cerebral hemispheres would be manifested by changes in the electroencephalogram. I thought perhaps Dr. Nelson could say something for us about what we might expect in this matter of correlating an earlier lesion of the nervous system with symptoms which develop later on.

DR. JOHN NELSON: I first wish to make it very clear that there is nothing specific about the electroencephalogram that "writes-out" encephalitis for us.

The types of changes that one sees in the electroencephalogram in cases of acute encephalitis fall into three general categories. There may be only minimal slowing of the cortical electrical pattern occurring diffusely. The finding of diffuse minimal slowing initially, clearing on serial records, would suggest that a transient brain disease had been responsible for the original alteration and now had cleared. It must be remembered that the history here is extremely important, since a toxic process or cerebral contusion might produce similar changes.

A second type of change which may be found during or immediately after an episode of acute encephalitis is marked, generalized slowing in which potentials arising from all head regions are of fairly high amplitude—both rhythmic and arrhythmic in nature. Such an abnormality ordinarily speaks for a definite pathological process involving the brain in a diffuse fashion. However, cerebral trauma, a rapidly progressive cerebral degeneration, or a severe intoxication might produce such a change. The finding of such a change in a patient with an acute nondescript febrile illness would be strongly suggestive of encephalitis.

The electroencephalogram may show, in addition to a diffuse background slowing, one or more foci of maximal involvement. Multifocal involvement is a common finding, and there is pathological evidence that encephalitis may affect certain areas of the brain more than others. When a single area of focal slowing is found in a patient with an acute febrile illness and signs of meningeal involvement producing a lymphocytic pleocytosis, the question of a brain abscess may arise. Finding such an abnormality in a patient who is growing pro-

gressively worse may prompt one to perform further studies, such as cerebral angiography, to differentiate the two disorders.

EEG changes found months or even years after an episode of acute encephalitis may be of practical value in clinical evaluation of a patient. This is particularly important in a child who develops convulsions for no readily apparent reason. There may be gliosis present in various areas of the cortex as a result of a process which involved the brain generally but affected some areas more than others. The EEG, then, may show multiple foci of involvement. There may be foci of spiking or mixtures of spikes and slow waves, arising from several different areas. The background may show some diffuse disturbance in addition to the multiple focal areas. Such an EEG would be quite different from the usual tracing found in cases of so-called "centrencephalic" convulsive disorder which we have not yet learned to relate to any disease process. Again it must be pointed out that the type of record just described as sometimes occurring after an encephalitis may also be seen after cerebral trauma or in association with some cerebral degenerative process. Here again, the history should provide enough additional information to differentiate the latter two conditions.

In summary, fairly characteristic EEG abnormalities occur in association with an acute attack and in the later post-encephalitic phase. While these changes are not specific for encephalitis *per se*, when viewed along with the clinical picture and historic data they may be of considerable value.

DR. UTTERBACK: I would like to mention very briefly one other point of interest, and that is that along with our efforts to determine the effectiveness of the polio vaccines a lot of progress has been made in the techniques for identification of viruses. This has made it possible for us to obtain much more valid statistics than had been available in the past. A good example of this is the paper I mentioned earlier, by Lennette and co-workers,¹ a study that was carried out in California in a three year period, 1956 through 1959. Incidentally, their criteria for evaluating antibody responses may be worth bringing to your attention. If the elevated titer is for polio or for

mumps then a single titer more than 1:32 is probably significant. If there is a titer for equine or St. Louis encephalitis then a level as high as 1:16 is probable significant. I mentioned awhile ago that for herpes simplex it takes quite a high titer to be significant. More important than any one titer is evidence of a significant rise in titer. If specimens are submitted approximately three weeks apart, i.e., if a specimen is submitted at the onset of the illness and another one three or four weeks later, and there is as much as a four-fold increase in the titer, we have pretty good proof that the organism is responsible. Unfortunately, sometimes people have more than one virus present at the same time, and there may be a rising titer for more than one. We are very sure that patients who have the clinical syndrome of meningoencephalitis may have infections at the same time by one of the polio viruses, one of the ECHO group, mumps, or the Coxsackie virus.

DR. MACKEY: There is one practical point I think is worth pointing out to you. That is that you must specifically request the laboratory to do entero-virus studies, otherwise those are not ordinarily done. You must write out specifically on the request sheet "routine encephalitis and enteroviruses."

DR. UTTERBACK: One point that we skipped over earlier deserves more attention. In the routine laboratory work-up some rather unusual cells were seen in the peripheral blood. To the hematologists these are known as "virucytes"; this term is a little new and strange to me. I wonder if Dr. Dugdale would say something about what the word "virucyte" means.

DR. MARION DUGDALE: By "virucyte" we merely mean that we have observed mononuclear cells which we associate with a viral infection as opposed to white cell malignancies. These cells (I saw the ones on the second patient's sister) were large and monocytoïd. We could not actually put them into any category of normal cells. They were large vacuolated, obviously slow-moving, ameboid cells resembling both monocytes and lymphocytes.

These are not specific in any way. We see peculiar cells of this and similar types in patients with flu and bad colds, as well

as the more serious viral infections. The term "virucyte" is used to cover this vast multitude of peculiar lympho-monocytoïd cells that are not malignant. These changes suggest a virus infection and not a leukemic process. We cannot go much further; we can certainly not say what type of virus. Most people associate "virucytes" with infectious mononucleosis, but they are not in any way specific for this disease.

DR. UTTERBACK: It is rather important to make that distinction from infectious mononucleosis because, as you are probably aware, many of the symptoms of infectious mononucleosis are similar, at least initially, to those of patients who have one of these illnesses.

DR. MACKEY: Last summer we had a sister and brother admitted on the pediatrics service. Both of them had terrific meningeal responses, one had about 2000 cells and the other about 1500, practically all lymphocytes. There was historical evidence of a viral infection going through the rest of the family. This was proved to be polio—I forget which type—in both children. There were many of these large cells, such as you described as "virucytes," in their spinal fluid specimens. A number of people around here looked at them but none of us had ever seen a cell exactly like this in the spinal fluid. It is interesting that in the patients today the same cells are seen in the peripheral blood.

DR. DAVID SCHEINBERG: Can you explain the mechanism of disturbance of consciousness in encephalitis:

DR. UTTERBACK: I don't know that I can give a really satisfactory answer to that, Dr. Scheinberg; about all I feel confident in saying is this: the disturbance of consciousness in an individual with encephalitis, as well as with any cerebral disease, seem to be definitely related to the amount—to the quantity—of the central nervous system that is involved. Thus, if there is a small lesion there is not apt to be an alteration of consciousness. If there is a larger involvement there is apt to be some disturbance of consciousness. Therefore, one important implication of coma is that a more severe, or more widespread, involvement of the central nervous system is present. This has to be qualified just a little in that stud-

ies of the reticular system in the brain stem indicate that if there is specific involvement of certain parts of the reticular formation there may be loss of consciousness even though the lesion is fairly small.

DR. GLENN CLARK: Last week we saw a 17 year old girl who was discharged a month earlier with a diagnosis of meningoencephalitis. Her virus studies showed a rising titer for Asian influenza virus. Do you think this could have been the cause of her nervous system symptoms?

DR. UTTERBACK: In the first place I think it certainly could have been the cause, though I don't know how common this complication is. There have been several good demonstrations that the Asian strain may cause meningoencephalitis. Certainly there were epidemics of influenza back in 1917-18 and in 1922 which produced very clearcut encephalitis. On the other hand, the usual influenza viruses A and B are probably not often responsible for the kind of process we are concerned with here.

DR. CLARK: The patient was still running a fever—still felt a little sick—after three weeks. I just wondered if there is anything further that should be done now.

DR. UTTERBACK: As regards treating her, or further identification? Unfortunately

we have as yet no "specifics" for any of these infections. Only conservative management—bedrest and symptomatic therapy—is available. As regards identification, I think there might be some question in your mind whether the influenza virus is the only one responsible for this patient's infection. Was the whole range of antibody studies, including the entero-viruses, requested for her? It is unfortunate that we still don't have good immunological or "virulological" tests for many of the viruses. Moreover, I am quite sure there are many viruses that have not even been identified as yet.

STUDENT: How serious and how frequent are the residuals?

DR. UTTERBACK: We just don't know. They certainly are significant in both severity and frequency. Even more difficult to determine is the incidence of disabling or disturbing symptoms which may appear as much as 20 years later, and yet may be in large part due to the scars of the present infection. We feel sure this relationship does exist, but no one has good statistics to document it.

Reference

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CLINICOPATHOLOGIC CONFERENCE

Vanderbilt University Hospital Neonatal Hepatitis*

A 6 week old white girl was admitted to Vanderbilt University Hospital in March 1954, because of persistent vomiting. She was the product of a full term uncomplicated pregnancy. According to the mother both she and the father were anemic but two siblings were said to be normal. The child had vomited after feedings several times each day since birth and was thought to be hungry immediately afterwards. Weight gain had been slow and the abdomen was often distended. Two weeks prior to this admission she was in another hospital because of dehydration and was treated with intravenous fluids and Terramycin. No diagnosis was established and vomiting continued. Stools were said to be infrequent, green, and streaked with mucus. The mother felt that the baby had been jaundiced from time to time. Blood was noted in the vomitus one day prior to admission at which time the patient was referred to Vanderbilt University Hospital.

Physical Examination. Weight was 7 lbs. 5 oz., temperature 98.8°F., pulse 140 per minute, and respirations 40 per minute. The patient was poorly nourished but well developed. The skin was not icteric though the sclerae were thought to be slightly yellow. There was no rash. Ears, nose, and throat were normal. Fontanels were soft and the neck was supple. Examination of the chest and heart revealed no abnormalities. The abdomen was distended and tympanitic. The liver was felt 1 cm. below the costal margin; the spleen was not felt. Fluid was not thought to be present. Bowel sounds were easily heard. Bilateral, easily reducible inguinal hernias were present. The remainder of the examination was normal.

Laboratory Data:

Urine: Mar. 2. PH 5.5, protein negative, sugar 2+, microscopic examination was normal.

Mar. 5. positive for bile and urobilinogen.

Mar. 8. pH 6.5, protein negative, sugar 2+ positive for bile, microscopic examination was normal.

Blood: Mar. 2. WBC. 28,500, Hgb. 7.7 Gm., normal differential count with hypochromic and target cells; icteric index was 100, Coombs test was negative.

Mar. 4. Hgb. 6.3 Gm, clotting time 6½ minutes, clot retracting at one hour said to be "poor."

Mar. 6. WBC. 14,500, Hgb. 15 Gm, platelets 34,000.

Mar. 10 WBC. 10,500, PCV 35.5, platelets 62,000, reticulocytes 1.8%.

Blood Chemical Values:

Mar. 2. CO₂ 13.4 mEq/L; Cl. 99.9 mEq/L.

Mar. 3. Bilirubin, direct 2.2 and indirect 1.7 mg./100 ml.

Mar. 6. TSP 3.2Gm./100 ml. (Alb. 2.0/Glob. 1.2), Bilirubin indirect, 6.9, and direct 6.1 mg./100 ml. Prothrombin time 6%; Kahn negative.

Mar. 8. N.P.N. 23 mg. and P. 2.4 mg./100 ml. CO₂ 17.6, Cl. 94.8, Na 117.5 and K 6.9 mEq./L. Alk. phosphatase 37.8 Bodansky units.

Mar. 10. N.P.N. 29; TSP, 4.0. (2.6/1.4); alkaline phosphatase 28.9 units; Bilirubin, direct 9.9, and indirect 7.8, mg./100 ml. Thymol 2 units; cholesterol 75 mg./100 ml.; prothrombin time 6%.

Stool: Color—pasty, light, positive for blood.

Subdural Fluid: Xanthochromic with 100 mononuclear cells, 28 RBC./cu.mm. and 41 mg% of protein.

Paracentesis fluid—protein 0.54 gm.%.

Bone Marrow: Normal except for increased erythroid elements.

Cultures: Bone marrow, sterile; blood (x 3), sterile; paracentesis fluid sterile; stool cultures (x 3), positive for *Shigella* on each occasion.

X-ray Studies: Mar. 2. Chest—normal. Plain film of abdomen—"air throughout the small and large bowel."

Mar. 4. Barium enema—normal.

Mar. 7. Upright film of abdomen—"uniform increase in density over entire abdomen which could be fluid type density."

Course in Hospital: At the time of admission the child was only slightly jaundiced. Because of persistent bleeding from a venipuncture site and anemia, subdural taps were performed and 4 cc. of xanthochromic fluid were obtained from the left side. Lumbar puncture was not done. Vitamin K was given I.M. q 12 hours. Abdominal distension was persistent though the child did not vomit until the fourth hospital day. Even then vomiting was not of significant amount or frequency. Stools were described as frequent and green or yellow. Wangensteen suction and I.V. fluids were utilized intermittently to relieve distention and dehydration. On the 5th day temperature elevation was noted and Chloromycetin was begun. She was definitely jaundiced at this time. Temperature became normal and remained so. A surgical consultant thought the distension was caused by ileus secondary to sepsis. The tendency to bleed persisted as did the low prothrombin time. Paracentesis was performed on the 6th and 8th days and 200 cc. of clear, yellow, sterile fluid was obtained on each occasion. Jaundice became more intense but the liver size did not change. Stools remained green and yellow. The child became increasingly dyspneic and expired on the 11th hospital day.

DR. O. R. BATSON: Pediatricians are accustomed to dealing with the differential

*From the Departments of Pediatrics and Pathology, Vanderbilt University School of Medicine, Nashville, Tennessee.

diagnosis of neonatal jaundice. However familiarity with the problem has by no means simplified the matter of establishing a correct diagnosis. It should be emphasized that the incidence of hemolytic disease, extra-hepatic obstructive jaundice, and intra-hepatic obstructive jaundice is especially high in children under three months of age, and because of this our first objective, in dealing with a jaundiced infant, is to determine which of these three mechanisms is operative.

The present illness is compatible with all of these three basic processes and the fact that the stools were said to be green and streaked with mucus helps us little in reaching a conclusion. In general the stool history is not very helpful as a "leading sign" since children with biliary obstruction can have stools that are quite green. The presence of blood in the child's vomitus could well be the result of low prothrombin time following liver damage. The icteric skin and sclerae, and the presence of a palpable liver does not contribute to the clarification of the diagnosis.

The laboratory data are impressive and with this information I believe that we can conclude that the child had primary liver disease which accounts for the presence of bile and urobilinogen in the urine, hypochromic anemia as a result of blood loss, high icteric index, low total serum protein, elevated blood bilirubin, decreased prothrombin time, elevated alkaline phosphatase, increased thymol turbidity, and the possible presence of ascitic fluid. The presence of urobilinogen in the urine suggests damage to the liver cells and may well reflect the inability of the liver cells to excrete reabsorbed urobilinogen formed from bile still entering the intestine. In neonatal hepatitis this urobilinogen may disappear from the urine as the disease progresses and as bile no longer enters the intestine. I am not able to explain the relatively low platelet count. I believe that the presence of a small amount of subdural fluid is not disconcerting from the standpoint of differential diagnosis since the infant did have a strikingly decreased prothrombin time in addition to a relatively small number of platelets. The child's hospital course and

eventual death was characteristic of children with irreversibly damaged livers.

Thus I believe that the child did have neonatal hepatitis but that the chances of her having extra-hepatic biliary obstruction cannot be entirely dismissed. Certainly there are other diseases, some quite rare, that could cause damage to liver cells and in that fashion produce a clinical picture very similar to that of the infant under discussion. I refer especially to such diseases as galactosemia, fibrocystic disease of the pancreas, infectious mononucleosis and syphilis. Other causes for neonatal jaundice such as sepsis and erythroblastosis do not enter into the differential diagnosis in this particular child.

QUESTION TO DR. BATSON: Is it true that it is often impossible to determine whether a child has neonatal hepatitis or biliary atresia except by operative measures?

DR. BATSON: Yes indeed, the differential diagnosis between these conditions is often impossible to make without abdominal exploration and one must adopt a "watch and wait" attitude or proceed with an exploratory procedure. During recent years many Pediatric Centers have adopted the practice of waiting until the child is 3 or 4 months old before doing an exploration, basing their belief for this on the assumption that few patients with biliary atresia have correctable lesions and that the operative mortality in children with infectious hepatitis has been said to be high. We have not taken this attitude and I feel that one should proceed with an exploration as soon as it becomes apparent that the diagnosis cannot be established by non-surgical means. I do not believe that the operative mortality in children with infectious hepatitis is high if one simply takes a biopsy of the liver and does a cholangiogram with radiopaque material instead of doing a manual exploration of the ducts. In case the ducts are not intact further explorations and possible surgical correction would be indicated at that time. It is very important to make an early diagnosis especially since biliary atresia often results in cirrhosis of the liver and can do so in a very few weeks.

DR. J. L. SHAPIRO: At the time of au-

topsy the emaciation of this child was marked. The abdomen was distended and generalized icterus was evident. On gross examination the organ of major interest was the liver. It was demonstrated by dissection that the biliary ducts were patent throughout their course and neither intra-hepatic nor extra-hepatic blockage could be demonstrated. The liver was small in comparison with the normal and the same picture throughout the liver was evident on gross examination. On examination of the cut surface one had the impression that there was condensation of connective tissue though no nodular regeneration was evident. Intense bile staining was noted on gross examination.

In the microscopic sections, of which numerous were examined, the scarcity of hepatic parenchymal cells was a notable feature. There was *persistence* and perhaps proliferation of the bile ducts but *surviving* parenchymal cells were difficult to identify. In a few areas there were surviving parenchymal cells which nevertheless showed advanced degeneration by virtue of accumulation of fat and pigment in their cytoplasm and lytic changes as far as their appearance is concerned.

The changes which we have described, whether occurring in the newborn infant or in an older individual are those that we think pathognomonic of viral hepatitis. Of course it is impossible on the basis of morphologic grounds to differentiate between the so called infectious hepatitis and serum hepatitis. As far as I am concerned only these viruses are capable of causing the unique dissolution of massive amounts of hepatic parenchymal cells characteristic of the case at hand. I might say in passing that there has been a recorded incidence of a transmission to a human volunteer of viral

hepatitis from one of those cases occurring in the neonatal period.

There has been an attempt to divide so called neonatal hepatitis into different varieties. Of course such diseases as congenital syphilis may produce liver lesions associated with jaundice as may some other disease states. Syphilis was excluded as a possibility in the present case on the basis of serology and also on the basis of stains for the organism—which we did not anticipate to be present but which we thought it wise to exclude. The cases of so called neonatal hepatitis which I have observed could be all caused by the same agent. There is an attempt on occasion to differentiate on the basis of regeneration, presence of giant cells and other features which I do not think valid as far as establishing different disease states is concerned. For example in the present case the biliary epithelium which persists tends to form synechium-like giant cells on occasion. Some of these cases with lesser degree of injury have been followed clinically only to wind up with portal obstruction on the basis of nodular regeneration of persisting liver cells.

I am unable to explain the glycosuria—there was some inflammation in the pancreas and a few of the islets showed a peculiar type of necrosis of segments.

Final Diagnosis:

Neonatal Hepatitis

Bronchopneumonia

Focal pancreatitis, etiology undetermined

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President's Page



RALPH O. RYCHENER,
M.D.

Upon assuming the presidency of the Tennessee State Medical Association, I do so with full realization of the responsibilities that go with the office, as well as an awareness of the many problems facing organized medicine today.

The annual meeting, just concluded, brought to light many of our legislative problems with which we are involved, and others that we will be dealing with in the months ahead. This will apply on the national level as well as in our legislature where important measures will be sponsored by this Association in the 1961 session of the Tennessee General Assembly.

An issue on which I have some strong feelings was presented to the recent meeting of our House of Delegates. A resolution was adopted setting forth the reasons and calling upon the Governor of our State to appoint a Doctor of Medicine on the Board of Trustees of the University of Tennessee. The University does not have on its Board a Doctor of Medicine, in spite of having one of the largest colleges of medicine in the United States. It is my strong belief that a Doctor of Medicine would be unusually qualified regarding matters pertaining to the college of medicine and its affairs, as well as other departments of the University. Our profession recognizes the fact that a member of the Board of Trustees of the University of Tennessee should be a public spirited and civic minded man of integrity and vision. He should be one that will place the best interests of the University above that of any of its divisions. The medical profession has never been lacking of unbiased, dedicated, broad-minded men possessing the virtues and abilities that qualify physicians for trusteeship.

This Association has gone on record through the House of Delegates, urging the Governor to appoint a Doctor of Medicine to the next occurring vacancy on the Board of Trustees of our state university. It is my opinion that this step will not only add to the effective administration of the University, but would also be of great help toward the further progress of the University of Tennessee College of Medicine.

The Department of Medicine is not only one of the largest of any of the State Universities, but is highly recognized for its scientific achievement. It is an asset to our state and of great value to the health of the people of Tennessee.

Dentistry and pharmacy are now each represented on the U. T. Board. Surely, the largest and most important division of the Memphis branch is entitled to similar recognition by having a Doctor of Medicine as a member of the Board.

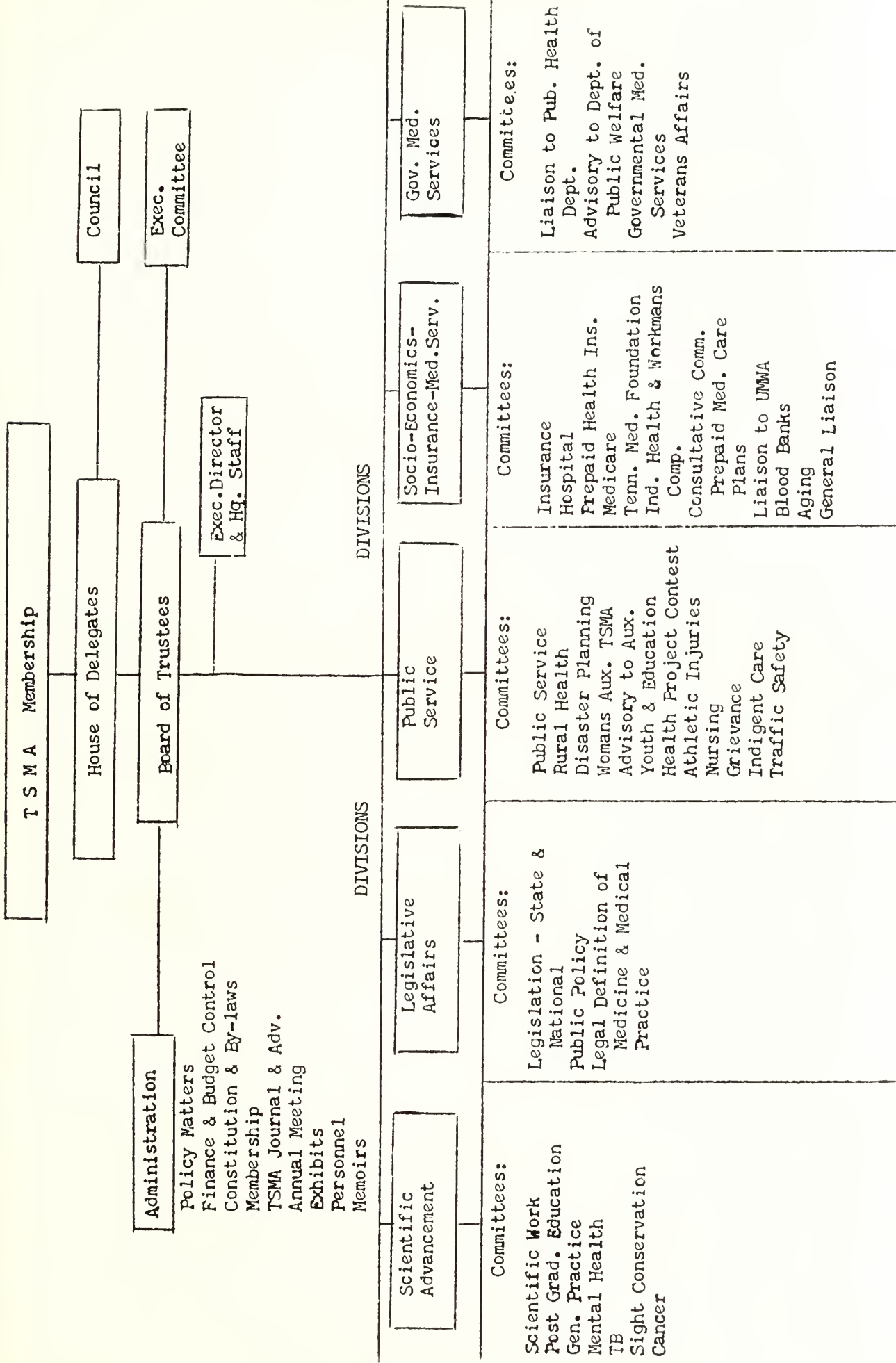
I pledge my efforts to the objective of obtaining a physician on the Board. Conferences have already been held with the Governor and other interested physicians throughout the state are working to bring such an appointment to a successful reality, and I hope you will discuss this with your friends in the Administration and seek their support of such an appointment.

The health of the citizens of Tennessee should not be entirely in the hands of non-medical people, making it all the more necessary that every effort be made to follow to completion the appointment of an M. D. to the Board of Trustees of University of Tennessee.

Serving as president of an Association of some 2,800 dedicated physicians is indeed an honor. It is a task which necessitates the expenditure of a great deal of time and effort. I approach the year ahead with optimism.

Ralph O. Rychener, M.D.

PROPOSED ORGANIZATION FOR TSMA



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MAY, 1960

EDITORIAL

CONSTRICTIVE PERICARDITIS RUSSIAN STYLE

In 1929 the undersigned while an interne in the Vanderbilt University Hospital, attended the first patient diagnosed, clinically, as having a constrictive pericarditis. This diagnosis was made by the resident physician, the late Dr. J. Lionel Alloway. The patient was subsequently operated upon by the late Dr. I. A. Bigger. Although the operation was an unsuccessful one it opened the door on a local experience with constrictive pericarditis that was pursued by Dr. C. S. Burwell, Dr. Alfred Blalock, and others. This group's experience has been widely disseminated and commented upon since that time.

Accordingly, it was with considerable interest that the recent article, "Diagnosis and Surgical Treatment of Constrictive Pericarditis," by Professor Uglov of Lenin-

grad,¹ was read and studied. The bibliography of twenty-two publications contains four from the United States, and two from England. The fact that 16 of the 22 articles are from Russian publications is understandable, but it is disappointing to read so little credit directed to the workers in this country and particularly in this local area.

According to Prof. Uglov the clinical diagnosis of constrictive pericarditis was made in only 36 per cent of 525 patients diagnosed as such, at post-mortem study.

He stresses the importance of the occurrence of edema, ascites, pleural effusion, elevated venous pressure, a small heart with diminished excursion of the contraction, and the demonstration in half the cases of calcification in the pericardium. Associated with these symptoms are the complaints of dyspnea, even at rest, weakness, chest pain, and fatigability. In our experience the findings of low voltage in the electrocardiogram is true, but not usually considered as diagnostic of constrictive pericarditis. The supportive nonoperative treatment suggested by Prof. Uglov emphasizes the employment of frequent blood transfusions to compensate for lowered serum proteins. The advisability of putting so much whole blood into the failing circulation of a nonanemic cardiac patient whose disability is such that he cannot increase his cardiac output is open to grave questioning.

Prof. Uglov describes his surgical technic of decortication of the heart. For comparison he lists 353 operations reported from Russia between 1916 and 1958 with 15.3 per cent deaths, 50 per cent recoveries and 17.5 per cent as improved. For comparison from areas outside of Russia and for a similar period, 1913 to 1958, among 1,104 operations there were 21.9 per cent deaths, 44.8 per cent recoveries, and 16.3 per cent as improved.

As a matter of historical record, constrictive pericarditis was first described by Chevers² in 1842.

The first case treated successfully, in the

¹Uglov, F. G.: Diagnosis and Surgical Treatment of Constrictive Pericarditis, Surgery 47: 247, 1960.

²Chevers, N.: Guys Hospital Reports 7:387, 1842.

United States, was reported by Churchill³ in 1929. At that time he reviewed the world's literature and found 37 reported cases. It is of interest that these cases, in the main, were reported from France, Germany, and the United States,—none from Russia. One of the most informative reviews of the subject was published by Burwell and Blalock⁴ in 1938.

Another interesting aspect of this disorder is the frequency in which it is seen in some areas, and its rarity in others. In addition, although this condition was found rather frequently in this locale, 20 to 30 years ago, it is now seen quite uncommonly.

Prof. Uglov's report is of interest. Since it is published in an American periodical, the availability to the author of our medical literature is a logical assumption. It, therefore, would have been read with a much kinder attitude had recognition been given to some of the more classical descriptions of this syndrome published in the United States.

A. W.



UNCONTROLLED FEDERAL SPENDING FOR MEDICAL CARE—A PROPOSED ANSWER

The following resolution will be placed before the House of Delegates of the American Medical Association at its meeting next month, upon instructions from the House of Delegates of the Tennessee State Medical Association.

Whereas, The American Medical Association recognizes that a need exists with respect to financing the health care of the indigent aged, and

Whereas, The American Medical Association actively opposes any type of federal legislation utilizing the Social Security Tax System to provide health care for any group of our nation's citizens, and

Whereas, The experience which the Tennessee State Medical Association has had with the Tennessee Indigent Hospitalization Program has demonstrated that it affords a method of providing needed medical and hospital care for medically indigent persons of all ages, and

Whereas, In 1938 the House of Delegates of the American Medical Association declared, "that the complete medical care of the indigent is the re-

sponsibility of the community and the medical and allied profession, and that such care should be organized by local governmental units and be supported by tax funds," and

Whereas, In 1956 due to an amendment of the Federal Social Security Act, funds for medical care of the recipients of the Department of Public Welfare became available to the several states to be administered by the State Department of Public Welfare, specifically earmarked for those persons on local welfare rolls, and

Whereas, Some of the States of the United States are now placed in a position of being forced to operate two separate indigent hospitalization programs; one in the Department of Public Health for non recipients of DPW, and one in the Department of Public Welfare for the recipients of DPW, and

Whereas, The hospital service for the indigent programs, conceived by, and organized under, the influence of the State Medical Associations, and administered by the Department of Public Health, have in some states, including Tennessee, a locally controlled service designed for the purpose of furnishing bed, board, and any hospital service needed for the effective treatment of the ill or injured indigent as deemed necessary and ordered by the physician or surgeon in charge of the case, and

Whereas, It is the desire of the Tennessee State Medical Association that an indigent hospitalization program continue to be administered in the states in a manner prescribed by state rather than federal law; therefore be it

Resolved, That the House of Delegates of the American Medical Association go on record as endorsing a national program patterned along the lines of the Tennessee Indigent Hospitalization Program as a positive method of providing for financing the health care of the nation's indigent elderly sick; and be it further

Resolved, That the American Medical Association does hereby petition The Congress of The United States, and request the Secretary of Health, Education, and Welfare, and the Surgeon General of the Public Health Service to petition The Congress to amend the Federal Social Security Act in such a way as to eliminate from the Act such phraseology as now exists which has the effect of compelling a state to change its total procedure of administering its public health program. Specifically, this change should be made in such a way as to require any appropriation made by The Congress for the care of the indigent sick to be allocated to the several states for re-allocation or designated to that state agency as deemed advisable by the constituted authorities of the state, namely the Governor and the General Assembly, in order to avoid duplication of the service at the state and local level of government; and be it further

Resolved, That the American Medical Association implement this resolution at the earliest possible time.

³Churchill, E. D.: Decortication of the Heart for Adhesive Pericarditis, Arch, Surg. 19:1457, 1929.

⁴Burwell, C. S and Blalock, Alfred: Chronic Constrictive Pericarditis, J.A.M.A. 110:265, 1938.

Dr. Monroe, past-president, had the thought of offering this type of resolution to the A.M.A. and therefore proposed it in the House of Delegates of T.S.M.A. last month. His interest in this type of aid to the medically indigent began at the county level in 1937; it has continued in the evolution of the Tennessee plan for the Hospitalization of the Indigent.

In December 1956, on these pages, I commented upon the implementation of the Medicare program and its possible far-reaching effects. Furthermore, I commented upon the then incipient implementation of Public Law 880 (the use of jointly supported governmental funds—federal and state—for the medical care of those receiving public assistance funds—Old Age, Child Aid, Blind and Disabled), a program proposed to aid some 5 million persons (3% of the population).

It seemed that these steps, new as of that time, might well be but a prelude to more to come. (The next step was the Forand-type of legislation now before us.) This thinking prompted me, in December, 1956—admittedly idealistically, but in the spirit of realistic idealism—to pose the following questions to the medical profession for thought:

"How many dollars (by virtue of governmental largesse but on a fixed fee basis) will I get from these 'poor,' how much time will they take, how many forms must I fill out, and how many of my collected dollars will I return to Uncle Sam in income tax?"

"Might it not, in the long run, be better to shun another commitment with government, and to stand on the basic philosophy of freedom to do as one wishes, and to care for the indigent without fee—the ministering side of our profession which sets it off from any other human endeavor except that of the minister! When we are ready to give up the last vestige of this philosophy and expect no more to give gratis of our knowledge and skill to the indigent, we surely have sold our birthright for a mess of pottage."

In the past three and a half years I have thought much about this problem, as the scheme for the hospitalization of Tennessee's indigents has been gradually extended, and as the evil effects of Public

Law 880 have shown themselves in the beautiful experiment in Tennessee of parallel public aids in hospitalization—one under local control, the other impossible of local control under existing conditions. A nationwide application of the Tennessee philosophy for hospitalization of the indigent is not impracticable. Every urban community that has tax-supported hospitals for the indigent, and many well organized local public health departments could implement such a program quickly. From our observation in Tennessee, the smaller communities could activate the simple machinery, involving only a few public spirited citizens, to carry out the provisions of the necessary legislation. The state health departments admittedly would need to expand their operations. Would anyone deny that good medical attention would be provided at less cost and less red tape! Would anyone deny that medical indigency needs to be determined at a local level, and that doctors should have the privilege of contributing to the care of the unfortunate? Would anyone deny that this *privilege* contributes to the doctor's attributes of compassion and sympathy—an intangible asset that cannot be taught in medical school, all too often is not developed in the research atmosphere of graduate training, and is not nurtured to its fullest by caring only for private paying patients!

In 1956, I wrote, *"The indigent in the public assistance categories should be admitted to the hospital, underwritten by the government if you please, as staff cases for the training of future generations of physicians and surgeons."*

It is said that in these past several years Big Labor has developed an attitude that it will have none of a "means test" in any type of legislation. Reuther, Meany, *et al* have the intelligence to learn. Could the American Medical Association or others show them that they and the public at large have a stake in undergraduate medical education and in graduate training? Can they learn to understand the effects of the growth of third party contracts upon the training of doctors and specialists for the future—those who are to take care of them, their children and their families? Can they see that a specialist becomes one only by *doing* (especi-

ally in the surgical specialties and obstetrics) and that under *competent supervision*? Can they be shown that if American medicine deteriorates in the next couple of decades the "blood is on their head," if they insist in making every patient a private patient? Can they be made to see the limitations of an apprentice-type of training (on private patients) in these days of a "mal-practice suit-happy" atmosphere and a population so inclined? If these powerful political figures could be taught the proper perspective of a nationwide plan for the hospitalization of the indigent, and if they would throw their weight behind it, possibly it might be done. Or, is it too late?

The voting of monies by Congress for medical care will never cease. It has become a part of the pattern of our social philosophy. The question is simply—can or should the only ones who recognize all the problems involved, the medical profession, have any voice in the proper expenditures of funds for medical care in terms of *good medical care*. As every doctor knows good medical care is *not* measured in dollars and cents, in fact, good medical care probably will deteriorate under uncontrolled governmental spending, a probability and fact alluded to numbers of times on these pages.

One hopes for a sympathetic hearing of the Tennessee resolution and one wishes it might be incorporated in the policies of the American Medical Association, for time is growing short, if it is already not too late.

★

R. H. K.

Special Item

Talk by Dr. Harmon Monroe, past-president, to the component medical societies of the State Association.

Mr. President, Members of the Medical Society, and Guests,

It is a distinct pleasure for me to appear here tonight to speak to you and to discuss with you some of my thoughts and views on the problems which are facing us today in the practice of medicine.

When we view objectively the practice of medicine as it exists today, we must accept that it is no longer, as it was a relatively short time ago, a simple, dedicated life of service to our fellow men. Instead, the practice of medicine is a complicated,

scientific, socio-economic, and political way of life. When once we could feel that we were fulfilling the requirements of our profession by diagnosing and treating the ills of our patients, now we must concern ourselves with the other aspects of the practice of medicine which have come into being.

Let us subject some of these problems to brief analysis. Most of us can remember when there were few, if any, factors which injected themselves into the relationship between the physician and his patient. Today we are faced with third parties, closed panel systems, and rising costs of medical service.

Last year, the American Medical Association sent a questionnaire to the various state medical associations asking this question: Do you, as a state medical society, hold the concept of freedom of choice of the individual physician to be inviolable and paramount in the practice of good medicine?

The trustees of your Tennessee State Medical Association carefully considered this question. In fact, they met on two separate occasions to discuss it. Their answer was this: The freedom of choice of physician is the most basic concept of our present system of the practice of medicine. However, there are other systems and these must be closely observed, consulted with, and advised. Furthermore, we believe that any so-called closed panel system should offer the patient the opportunity of freedom of choice of physician.

There are those who might say that this is a qualified answer. But let us view this practice realistically. If we agree that any system of medical practice should be tailored to the needs of the people it serves, then we must admit that the closed panel system may not always be bad . . . if it offers the best medical service possible under the local conditions which prevail. We must also admit that for better or for worse, the closed panel systems are with us to stay. Therefore, it seemed to us on your board of trustees that a realistic attitude toward this problem was far more practical than a reactionary, dogmatic approach.

The closed panel problem is not the least of those which confront us in the broad field of medical service. In fact, the term

"medical service" itself embodies a socioeconomic ill which has beset us. Physicians more and more find themselves on the firing line as the total cost of the medical service package continues to go up and up. But I feel strongly that in this regard, the physician is far too often made the whipping boy.

It is difficult to define the term "medical service." It includes far more than the services of the physician . . . it includes hospitalization, drugs, the services of ancillary personnel, and the purchases of such myriad items as eye glasses, hearing aids, and prosthetic appliances.

Admittedly, physicians' fees have increased in the past two years. However, they have not increased as much in proportion to the other components which make up the medical service package. It is unfortunate that too many of our patients fail to delineate the other factors involved in the total cost of medical service. Too often the whole package, including the cost of hospitalization, nursing service, and drugs, is thought of as "The Doctor's Bill." Perhaps we might give some thought to acquainting our patients with these medicoeconomic facts of life.

We might also give some thought to another result of the rapidly changing pattern of medical practice, this one in the area of medical public relations. We as practitioners can be proud of the tremendous achievements which have been accomplished in the field of medicine . . . the eradication of some of the great killers, and the work that is going forward to stamp out still others. We have attained, as a profession, deserved recognition from the public for our accomplishments in this area.

And yet, such progress has not been without its price. As the practice of medicine advanced, it has demanded greater skills and learning; it has also placed greater demands on the time of the physician. And it has altered the concept in the minds of the public of the physician as the family doctor.

This is not to suggest that the family doctor has vanished from the scene . . . I do suggest that the concept itself is disappearing. Not too many years ago the average patient held a composite view of his doctor as a medical consultant, family coun-

selor, and friend. He was a man to be depended upon and to minister to the ills of the members of the family . . . irrespective of the time, distance, or weather conditions.

True, his scientific skill was limited; but for this he compensated by rendering a warm, personal service to his patients. He was held to be all-wise, all-suffering, and all-serving.

Now this concept is being altered by several factors: modern transportation, the shift in population from rural to urban, and a shortage of doctors in some areas which results from distribution. Unfortunately, these factors are irreversible.

But there is another factor which we must recognize and strive to alter. This is the tendency on the part of too many of us to concern ourselves only with the symptomatic aspects of our patients instead of treating the patient as a whole person, one who needs more than just medical treatment.

If the doctor presents himself to his patients as a professional man of the highest order, but too busy or too aloof to interest himself in the patient as a person, he has lost one of his greatest tools in the fight against disease. When such an attitude exists, the patient finds himself reluctant to confide in the physician, and his confidence in the physician is not inspired. A barrier is established instead of a close doctor-patient relationship.

It is not enough that medicine points to its accomplishments. Statistics proving lower mortality and morbidity are no substitutes for sympathy. Antibiotics can never take the place of understanding.

I would like to point out some other changes going on within the medical profession.

We are now in that age sometimes referred to as that of specialization, and of group practice. I am sure there are many of you here tonight who can remember as well as I when group practice was rare and specialists were few.

Now it is incumbent upon us to concern ourselves with fitting the practice of medicine into this new age, while, at the same time, holding to the things which we have always thought most essential to the free enterprise system of the practice of medi-

cine. If this be the age of specialization, then it must, of necessity, be the era of closer cooperation between the general practitioner and the specialist. This is important when considered in the light of inter-professional public relations; it is paramount when viewed from the standpoint of the quality of medical service. Let us not, as general practitioners, bemoan specialization, nor as specialists decry the ignorance of general practitioners. Let us, instead, strive to work more closely together, seeking greater understanding of mutual problems to the end that we may all provide better medical service to our patients.

Another area of change to which I would invite your attention is the rapid growth of the practice of industrial medicine, and the problems which have resulted. We often hear it said that in industrial medicine, the patient is denied the freedom of choice of physician. This should not be, because our workmen's compensation law states that a list of physicians, containing not less than three names, be posted in the industrial plant or office.

We must consider the employer's interest in industrial medicine. In this day of intensive labor-management bargaining, medical care has become one of the high stakes. In most instances the employer pays for a package medical care plan as part of the employee's compensation in the form of fringe benefits. Thus the employer has a sharp interest in industrial medicine. He has to pay the premium . . . therefore, he feels he should have some voice in naming and knowing the doctors who care for his employees.

Industrial medicine has also presented certain medicolegal involvements. We, as physicians, are frequently called upon, to give an opinion as to the cause, the result, and the future effect of the worker's disability or illness. Sometimes we are frustrated and even angry because we do not understand the methods of our courts and the laws pertaining to such cases. We may even be inclined to "pass judgment" upon a worker's right to recover in a given litigation. We must realize that we, as individual physicians, cannot change the law nor alter the system of our courts. When we

present evidence, we must do so truthfully and to the best of our professional ability, objectively and without prejudice, as to the present status of the worker's health and the effect his disability will have upon his future. Then we have done our duty.

I believe the most significant change in the practice of medicine to be the inception and rapid growth of the prepaid insurance program. I am sure there are doctors here tonight who remember when the American Medical Association was vigorously opposed to the concept of prepaid insurance.

The original aim of prepaid insurance was to cover the cost of hospitalization and surgery for unexpected high cost procedures. Not only has the program grown in acceptance, as witnessed by the more than 130-million Americans who are subscribers, it has also grown in scope. Included now are in-hospital medical care, x-ray and radiation therapy, obstetric care, and the so-called catastrophic illness coverage.

The prepaid insurance program is plagued by many faults. It is subject to abuse from all parties involved. I strongly believe the program merits the sincere and wholehearted support of every practicing physician, because today it stands as the greatest single factor in the maintenance and preservation of the free enterprise system of the practice of medicine as we know it. In essence, its strength lies in the fact that this is a voluntary program, and its success gives the lie to those who would substitute a compulsory system of medical and hospital cost prepayment.

It is from this direction that our greatest danger faces us, in the form of the threat of governmental medicine. It has been ten years since the defeat of the Murray-Wagner-Dingell Bill, but the same career people who fostered and promoted this legislation have never ceased their efforts. Their latest and most prominent attempt to secure a form of socialized medicine in our nation is the Forand Bill.

I hope that none of you here tonight are unfamiliar with the provisions of this bill. If you are not aware of the threat it poses to you, as a private practitioner, I urge you to acquaint yourselves with this bill. And even more important, I urge you to take vigorous action to bring about its defeat.

When you speak out to your congressman or to your senator or to your friends and patients against the Forand Bill (HR 4700), you are helping in not only preserving the American free enterprise system of medicine, you are assisting in the fight for freedom from responsibilities of leadership in this fight. This bill, which would graft unto the social security program a system of surgical, hospital, and nursing home benefits, is the opening wedge in the battle of socialists to take over the practice of medicine. And if they are successful, the end result will be not only the gradual and complete socialization of medicine, but the eventual socialization of the other elements of our free enterprise system.

There is a very real moral issue involved in this type of proposed legislation. It points in the direction of the socialistic, or welfare state, in which a paternalistic government would assume the responsibility of caring for the elderly citizens, thus relieving the other members of the aged person's family and his local community of this responsibility. And when men know that their needs will be taken care of by a paternalistic government, something deadly happens to the human spirit. There is an inevitable tendency to laziness, shiftlessness, irresponsible citizenship, deceit, fraud, and downright immorality.

We as physicians, through our leadership in our communities, can be highly effective in setting the standards for the proper discharge of these all-important responsibilities of citizenship. We must constantly bear in mind that we are citizens before we are physicians . . . citizens of our community, our county, our state, and our nation. And as citizens we must maintain a keen interest and participation in government at all levels. Our nation is founded on the principle of laws passed after the free expression of public opinion and the considered judgment of our legislators. And we, as physicians, should make ourselves heard on proposed legislation which affects us, not only in the practice of our profession, but as citizens.

The physicians of Tennessee have adequately demonstrated their concern for the

provision of adequate health care, not only to the aged, but to persons in all age groups. This fact is shown by the sponsorship of your Tennessee State Medical Association of the indigent hospitalization program, conceived in Unicoi County in 1936 and adopted by the Tennessee Legislature in 1953, and in the Tennessee Plan. Under the provisions of the indigent hospital program, physicians of Tennessee agree to treat, without charge, those persons determined by screening committees within their local communities to be medically indigent. Funds to provide hospitalization for such persons are provided by the state and by those counties which elect to participate in the program.

The Tennessee Plan provides that participating physicians agree to accept as full payment of fees the amounts set forth in a fee schedule of insurance contracts held by persons in low income groups.

I cite these as examples of how a dynamic profession voluntarily moves to supply a service when the need for that service has been adequately defined. How can a bureaucratic system, which provides a service without respect to need, do other than stifle such a profession under a smothering cloak of red tape, control, and mediocrity?

In closing, may I leave you with this thought: Let us adhere to the principle that the practice of medicine is a dedicated profession, but, at the same time, let us realize that we are living in changing times. If we can face the problems that confront us, and adjust to these changing times with open minds, determination, frankness, and integrity, then the solution to these problems will reward our efforts.

DEATHS

Dr. Charles E. Pack, Jr., 49, Memphis, died April 13th at Methodist Hospital. His death was due to a heart attack.

Dr. Clarence Broughton Landham, 51, Chattanooga, died April 5th at his home.

Dr. Wm. J. Hillas, 81, Chattanooga, died March 26th in Tucson, Arizona.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Greene County Medical Society

The Society conducted its regular monthly meeting on April 5th at the Elks Club in Greeneville. The scientific program consisted of a paper given by Dr. Howell Sherrod, Johnson City, whose subject was "Cervical Spine and Its Injuries." His talk was supplemented with X-ray films pointing out some of the pitfalls in dealing with injuries of the neck.

Consolidated Medical Assembly of West Tennessee

Some 50 members of the Society met on April 5th at the New Southern Hotel in Jackson. The scientific program was presented by Dr. Sam E. Stephenson, Jr., Nashville, who presented a paper on "Pediatric Emergencies in the Neonatal Period." Discussion on the paper was led by Dr. G. Baker Hubbard, Dr. W. W. Harrison and Dr. Stanley Crawford, all of Jackson.

Knoxville Academy of Medicine

The Society met for its regular monthly meeting on the evening of April 19 in the Academy Building. The scientific program consisted of a Panel Symposium on the Therapy of Coronary Artery Disease.

Roane County Medical Society

The Society met in the Oak Ridge Hospital on the evening of April 26 where the meeting was preceded by a dinner in the cafeteria. The guest speaker was Dr. James L. Southworth, Knoxville, who spoke on the subject "Current Practices in the Surgical Management of Tuberculosis."

Memphis-Shelby County Medical Society

The Society met in regular session on the evening of March 1st at the Institute of Pathology Auditorium. The scientific program consisted of a symposium by a group of physicians from the staff of Kennedy Veterans Hospital. The program was as follows: "Pulmonary Infections Caused by Atypical Acid Fast Bacilli" by Dr. Robert H. Boon; "Testing Pulmonary Function in Office or at the Bedside" by Dr. Glenn E.

Horton; "Muscle Tumor as a Presenting Sign of Actinomycotic Infection" by Dr. John C. Larkin, Jr.

Chattanooga-Hamilton County Medical Society

The Society conducted its regular meeting in the Interstate Building on April 5th. The program consisted of a paper entitled "Radiographic Demonstration of Renal Masses" by Dr. John Hampton, and "Some Practical Aspects of Indocrinology" by Dr. Harold Swartz.

Nashville Academy of Medicine and Davidson County Medical Society

The Academy met in St. Thomas Hospital on the evening of May 10th. The program was preceded by a dinner. The guest speaker was Mr. Leo Brown, Director of the American Medical Association's Communications Division. His subject was "Responsibilities of Organized Medicine." The topic, of concern to all physicians, dealt with the responsibilities of, and to organized and academic medicine.

NATIONAL NEWS

The Month in Washington (From the AMA Washington Office)

Defeat of the Forand Bill in the House Ways and Means Committee highlighted developments on the issue of legislation to provide more Federal health care for the aged.

The Committee voted 17 to 8 on March 31 to shelve the Forand bill which would increase Social Security taxes to provide surgical benefits and limited hospitalization and nursing home care for Social Security beneficiaries, except the disabled.

However, the issue remained very much alive.

The Eisenhower Administration and Congressmen were separately considering various alternative proposals to provide additional health care for the aged, but outside the Social Security system. And the action of the House Committee did not rule out the possibility of Forand-type legislation being brought up in the Senate later this session.

The House Committee vote against the Forand bill came during the drafting of an omnibus measure of revisions in the Social Security program. The Committee voted tentatively to bring physicians under Social Security.

The Committee also favored elimination of the requirement that a disabled person must be 50 years or older to be eligible for Social Security payments.

Arthur S. Flemming, Secretary of Health, Education and Welfare, said the Administration was considering a plan for Federal payments to the states to help needy old persons buy private health insurance on a voluntary basis. He said he hoped the plan would be ready for submission to Congress by late April.

Sen. Jacob K. Javits (R., N.Y.) and seven other Republican Senators introduced similar legislation in the Senate. The bill called for the Federal government and states jointly putting up about \$1 billion a year to help persons 65 years and older, and their spouses, to buy private health insurance. The coverage would include physicians' care in home and office, diagnostic services, hospitalization and nursing home care.

Another plan being considered by some other members of Congress would broaden the Federal-State public assistance program to provide more health care for needy older persons.

Both President Eisenhower and Vice President Nixon reiterated their opposition to any compulsory health plan such as the Forand bill. The President told a news conference that such plans would be a definite step toward socialized medicine. He proposed that medical care for the aged be improved through further development of voluntary health insurance programs.

Vice President Nixon gave his position in a letter to physicians who had communicated with him about the matter.

"The Vice President, throughout his career as a public official, has consistently opposed and will continue to oppose any compulsory health insurance program," the letter said. "This, of course, includes the Forand bill. . . ."

"He believes that the best way to handle the problem of people over 65 who do not

have and cannot afford health insurance is through a program which will enable those who desire to do so to purchase health insurance on a voluntary basis."

On the other side, three candidates for the Democratic nomination for President—Sens. John F. Kennedy (Mass.), Hubert H. Humphrey (Minn.) and Stuart Symington (Mo.)—said they would push for passage of Forand-type legislation.

The AFL-CIO continued its all-out campaign in support of the Forand bill. Leaders of the labor union repeatedly attacked the American Medical Association for opposing the bill.

One of the attacks prompted Dr. Louis M. Orr, Fla., to protest in a letter to AFL-CIO President George Meany against the union's "deliberate distortions of the truth, perversions of the truth, and outright untruths."

Dr. Orr charged that allegations in a political memorandum of the AFL-CIO's Committee on Political Education (COPE) "not only . . . attempt to impugn the motives and competence of the nation's physicians, but they seek to mislead labor's rank and file, the members of Congress, and the American people as a whole."

"When the AMA opposes any legislative health measure, it does so because its members believe that it would lead to poorer—not better—health care for the people of this country," Dr. Orr said.

Senate Republican Leader Everett M. Dirksen (Ill.) also defended the AMA as well as the Eisenhower Administration, against the attacks when AFL-CIO leaders repeated them in testimony before the Senate Subcommittee on Problems of the Aged and Aging.

Sen. Dirksen denounced them as "gratuitous slurs," "stinking statements," "invidious . . . insane charges" which constituted "an absolute disservice to the country."

Dr. James A. Appel, Lancaster, Pa., a member of the AMA Board of Trustees, testified before the Senate Subcommittee that the greatest health problem faced by older people is "their isolation from the rest of society." He said:

"The health problems of the aged can only be solved within the context of total health. They involve far more than hospitals or a doctors' care. They involve the

older person's other requirements in life, whether these be housing, recreation, community understanding and acceptance, the right to be useful, the courtesy of being treated as individuals, or the opportunity of living as self-reliant, respected members of society."

As for an aged person being denied medical care because of a lack of money, Dr. Appel said emphatically:

"Medical care is available to every man, woman, and child in the United States regardless of his or her ability to pay for it.

"That care is not now denied, nor will it be denied."

Armed Forces Continue to Require Services of Most Physicians

The Armed Forces continue to require the services of most physicians liable for military service under the Universal Military Training and Service Act.

Lt. General Lewis B. Hershey, Director of Selective Service, issued this reminder to physicians when it became apparent recently that the Armed Forces would not call to active duty a small number of physicians in a few specialties who had been deferred for residency training under the Armed Forces Reserve Medical Officer Commissioning and Residency Consideration Program.

All reserve officers deferred for residency in most specialties will be called.

Shortages exist and will continue in certain specialties and in the group of officers who have not specialized, according to information received by the Director of Selective Service from the office of Dr. Frank B. Berry, Assistant Secretary of Defense (Health and Medical).

The Selective Service Director urged physicians not to draw erroneous conclusions concerning the need of the Armed Forces for their services. If a substantial number of physicians, basing their decision on knowledge that a few reserve medical officers in a few specialties are not being called to active duty after residency, conclude they are not needed, existing shortages in the Armed Forces will be aggravated.

The Department of Defense has found it unnecessary to requisition physicians through the Selective Service System since

early in 1957. This has been so only because sufficient numbers of physicians sought reserve commissions and thus made themselves available for call to active duty.

There is a continuing need for applications for the residency program, as well as for reserve commissions and active duty at the conclusion of internship, General Hershey stressed.

The temporary surplus in some specialties in the residency program is understandable. Estimates of needs must be made four or five years ahead. Other factors are revisions in Armed Forces strength, redistribution of troops, reorganization of the hospital system, specialists choosing a military career, and voluntary extension of duty tours by reserve officers.

MEDICAL NEWS IN TENNESSEE

Emergency Hospitals in Case of Disaster

A Disaster Planning Committee of TSMA reported to the House of Delegates in April that County Medical Societies have been furnished with a list of cities where emergency hospitals are stored and the name of the custodians. These hospitals can be put into use in the event of any type of disaster, either natural or man-made, by obtaining permission from the Director of Civil Defense, Nashville, Tennessee.

The Reference Committee in approving this report before the House, recommended that the emergency hospitals be published in the JOURNAL giving the locations of such facilities. Following is a list of these emergency hospitals and names and addresses of the custodians:

Disaster Committee

Emergency Hospital Custodian's Names and Addresses

Dr. A. T. Hieks	Frank Wallace
301 Church Street	Copperhill, Tennessee
Camden, Tennessee	
Nathan Morgan	Marion Richardson
Cookeville, Tennessee	Tullahoma, Tennessee
Staey Johnson	Dr. Kenneth Twilla
c/o Memorial Hospital	Smithville, Tennessee
Highway 41-A South	Dr. Julian K. Welch
Clarksville, Tennessee	310 East College Street
	Brownsville, Tennessee

Oscar Wheeler
City Hall
Pikeville, Tennessee

Ralph A. Keon
City Hall
South Pittsburg, Tenn.

Heiskell Price
Pressman's Home
Rogersville, Tennessee

N. H. Harris
501 Summit Street
Sweetwater, Tennessee

Dr. V. R. Bottomley
218 N. Main Street
Greeneville, Tennessee

Samuel N. Gurley
c/o Tom Wright
9051 Old Poplar Pike
Germantown, Tenn.

Alex A. Dacus
c/o Marion D. Dacus
Burnsview, Tennessee

Clifford Shelton
North Lee High
Calhoun, Tennessee

Dr. W. N. Cook
Forrest Hills
Maury County
Health Center
Columbia, Tennessee

Dr. M. R. Beyer
County Health Dept.
Court House
Dresden, Tennessee

Morris W. Greene
67 Ocall Street
Cleveland, Tennessee

LeRoy B. Stansell
Lakemont Drive
Rockwood, Tennessee

Lloyd Black
County Court House
Fayetteville, Tennessee

Dr. J. Knox Tate
205 W. Market Street
Bolivar, Tennessee

John Maloney
344 Groh Street
Lawrenceburg, Tenn.

J. B. Eblen
Jellieo, Tennessee

Jaek Blackman
Giles County Hospital
Pulaski, Tennessee

Center Planned for Assistance of Handicapped

A \$400,000 rehabilitation center for physically handicapped persons will be constructed as an addition to the Les Passees Treatment Center in Memphis. The project has been sought by a group of prominent Memphis citizens, headed by Dr. Marcus J. Stewart, Chairman of the Governor's Committee on Employment of the Physically Handicapped.

Vanderbilt University School of Medicine

In a symposium on radiation the latest findings relative to the effect of radiation on human beings was discussed at Vanderbilt University on April 11 and 12 when research scientists and representatives of government, universities and industries pooled their information.

The two-day symposium sponsored by the section on medical science of the American Association for the Advancement of Science brought together researchers from 19 states, three foreign countries, officials of the U. S. Government and a representative from the United Nations.

Dr. George R. Meneely, associate professor of medicine and director of the Vanderbilt University Radio-isotope Center, was chairman of the symposium.

Of particular interest at the symposium was a discussion of "whole body counting and effects of internal gamma ray emitting radioisotopes."

The proceedings of the symposium, which are to be published by Charles C. Thomas Publishing Company, will include discussions of the biologic hazards of "fall-outs," the risk of leukemia following radiation exposure, radiation injuries and the law, and many other phases of problems related to radioactivity.

One Half Million Dollars Spent on Cancer Research

Since 1945, a total of \$553,884 has been allocated for cancer research in Tennessee, and currently seven grants totaling \$200,601 are in effect in the State, the American Cancer Society has reported.

Research is being done at Vanderbilt University School of Medicine, University of Tennessee, Meharry Medical College and

New Hospital at Jamestown

A new \$650,000 facility, the Fentress County General Hospital, containing 25,000 square feet of interior, is now in operation. The cost of equipment and furnishing the facility was reported to be \$125,000.

Meetings Conducted in Memphis Recently

The International Academy of Pathology met in Memphis April 25-27, attended by approximately 1,000 leading pathologists.

The American Association of Pathologists and Bacteriologists held its 57th annual meeting in Memphis, and meeting jointly with it was the American Society of Human Genetics.

The Society of Clinical Surgery met at the Baptist Hospital April 29-30. The Society brought more than 40 leading surgeons from all sections of the country to hear a scientific program presented by Department of Surgery of the University of Tennessee.

University of Tennessee, College of Medicine.

University of Tennessee College of Medicine

Two faculty members have been awarded research grants. Dr. Roger T. Sherman, assistant professor of surgery, who has received a \$33,000 grant from the Medical Research and Development Command of the U. S. Army. He is studying response of the body to artificial internal organs constructed of plastic materials.

Dr. G. H. Aivazian, associate professor of psychiatry, has been awarded grants totaling \$4,645 by three pharmaceutical firms. He is evaluating three new tranquilizing drugs in the treatment of mental disorders.

★

Dr. Richard C. Moon, assistant professor of physiology at the University of Tennessee Medical Units has been awarded a \$42,857 research grant by the U. S. Public Health Service. He will use the funds to continue his studies of hormonal factors in normal growth of the mammary gland and the influence of mammogenic hormones in the development and growth of breast cancer.

★

Dr. Sydney A. Cohn, associate professor of anatomy at the University has been awarded a \$39,000 research grant by the dental section of the U. S. Public Health Service.

★

A postgraduate program in advances in pediatrics was conducted March 30-April 1. Guest lecturers were Dr. Victor C. Vaughan, professor of pediatrics at the Medical College of Georgia in Augusta, Dr. Fred M. Taylor, associate professor of pediatrics at Baylor University College of Medicine in Houston, Texas. The course presented advances in diagnosis and treatment of disease in infancy and childhood.

John Sevier Chapter—Tennessee Academy of General Practice

The John Sevier Chapter met at the Town House Hotel in Erwin on March 17th. The meeting was preceded by a dinner. The guest speaker was Dr. Charles H. Hillman, Johnson City, who presented a paper on

"Ovarian Tumors." The next meeting of the society will be held in Greeneville.

Something for Everyone at Annual Meeting

A diversified scientific program and an outstanding array of guest speakers was presented to Tennessee physicians at the 125th annual meeting of the Association, conducted in Nashville, April 11-12-13. Newer concepts in medical and surgical technics were presented, and each day the general program was concluded with a panel discussion or symposium. Despite emphasis on newer concepts, all scientific events were planned with an eye toward practicality. Rounding out the contribution made by guest speakers and Tennessee physicians appearing on the general program, those in attendance were treated to a high-quality display of technical and educational exhibits.

Hale-McMillan Lecture

The thirteenth annual Hale-McMillan Lecture was given on April 28, at Meharry Medical College. The subject was "Dehydration and Metabolism." Dr. Carl A. Moyer, professor of surgery, Washington University School of Medicine, St. Louis, Surgeon-in-Charge, Barnes and Affiliated Hospitals, was the guest lecturer.

PERSONAL NEWS

Dr. Taylor Rayburn, Jr., has opened an office for the practice of medicine in Mt. Pleasant.

Dr. E. Converse Peirce, II, Knoxville, recently addressed the Technical Society of Knoxville. His subject was "Artificial Lung Using Teflon Membrane."

Dr. S. Boyd McClary, Etowah, is a candidate for tax assessor of McMinn County.

Dr. Lynn F. Curtis, Maryville, has been appointed Chairman of the Health and Safety Committee of the Blount County Chamber of Commerce.

Dr. G. Sydney McClellan, Nashville, has been named Chairman of the speaker's bureau of the Nashville Davidson County unit of the American Cancer Society. Other members of the Committee are **Dr. James A. Kirtley, Jr.** and **Dr. Morse Kochtitzky**, also of Nashville.

Dr. Alfred D. Mason, Jr., Memphis, has been named president-elect of the Southeastern Urological Association.

Dr. O. M. Derryberry, Chattanooga, has been on a 25,000-mile, six-week trip to Africa, India and the Middle East, to confer with officials of the World Health Organization and view public health programs.

Dr. I. F. Tullis, Memphis, attended the annual meeting of the American Society of Internal Medicine in San Francisco.

Dr. W. G. Rhea, Paris, attended the meeting of the Southeastern Surgical Congress in New Orleans.

Dr. Geo. K. Henshall, Jr., Chattanooga, discussed the Forand Bill before the Shrine Club in Chattanooga.

Dr. C. M. Clark, McMinnville, participated in a two-day district conference of the Rotary Club.

Dr. James N. Etteldorf, Memphis, was guest speaker before the Memphis Section of the National Council of Jewish Women.

Dr. James R. Drake, Chattanooga, announces the removal of his office from 4601 Brainerd Road to 4513 Brainerd Road.

Dr. Thomas K. Ballard, Jackson, has been named division surgeon for the Illinois Central Railroad.

Dr. Jesse Adams, Chattanooga, participated in a panel discussion on "Cancer Detection" before the Brainerd Kiwanis Club.

Dr. Bernard Patrick, Memphis, discussed the "Forand Bill and Its Implications" before the Tennessee Licensed Practical Nurses Association, Area 20.

Dr. J. Ray Smith, Paris, attended the Southeastern Surgical Congress in New Orleans.

Dr. W. B. Robinson, Newport, attended the meeting of the American Academy of General Practice in Philadelphia.

Dr. Wm. B. Wadlington, Donelson, addressed the Davidson County Council for Retarded Children.

Dr. James M. Hays, Chattanooga, announces the opening of his office for the practice of medicine at 501 McCallie Avenue.

Dr. Morris F. Ferguson, Lebanon, has joined the staff of McFarland Hospital in Lebanon. He is formerly from Nashville.

Dr. McCarthy DeMere, Memphis, has been named president of the Sertoma Club.

Dr. E. E. Anderson, Donelson, has been presented an award by the Donelson Civitans as "Outstanding Citizen of 1959."

Dr. Ben Hall, Johnson City, has been inducted as a Fellow of the American College of Physicians.

Dr. Charles B. Gurney, Oak Ridge, has announced the opening of his office for the practice of medicine in the Medical Arts Building.

Dr. Earle L. Wrenn, Jr., Memphis, is the new president of the Memphis Better Schools Committee.

Dr. J. Cash King, Memphis, recently discussed "Radio-active Isotopes" at a meeting of the Methodist Hospital Auxiliary.

Dr. Jesse Adams, Chattanooga, recently addressed the South Pittsburg Rotary Club.

Chattanooga physicians appearing on TV programs in that city are **Dr. Charles A. Scott, Jr.** who spoke on "Endodontics"; **Dr. W. Powell Huteherson** who discussed "Cytology and Prevention of Cancer of the Cervix"; and **Dr. Robert A. Waters** who discussed "Cancer of the Central Nervous System."

Dr. E. Wayne Gilley, Chattanooga, and **Dr. I. F. Tullis**, Memphis, have been chosen to represent Tennessee on the Governing Body of the American Society of Internal Medicine.

Dr. Lindsay K. Bishop has been named president, and **Dr. Lowry Dale Kirby**, secretary-treasurer for 1960, of the Nashville Pediatric Society.

Dr. Peiree M. Ross, Nashville, announces the removal of his office to 2118 West End Ave. for the practice of internal medicine.

HISTORICAL NOTES

The Organization and Administration of the Medical Department of the Confederate Army of Tennessee (Continued)

Chapter IV The Hospital Service

The hospital is an excellent one; everything about it is entirely new; but I cannot look on those things with the same pleasure which I have heretofore, as it is impossible to feel that anything connected with our army is permanent. (Kate Cumming, *A Journal of Hospital Life*.)

I. Hospital Personnel and Their Duties

When Stout assumed his duties as Surgeon in charge of Gordon Hospital at Nashville, he found nothing but "650 sick troops." His resources were not much larger when he took over as Medical Director of Hospitals for the whole army.¹

The hospital organization as further developed by Stout gave to the surgeon many powers not before specified. These powers included the supervision of the hospitals under his control, the control over all funds, and the responsibility for all equipment, provisions, and reports to be made.²

The real organization of a hospital system took place at Chattanooga when Nashville was evacuated. Four major hospitals in this city formed the pattern which the others in the army followed. These were the Foard, Academy, Gilmer, and Newsom. The Academy Hospital was the one in which Stout displayed most interest. Besides be-

ing a center for the treatment of the sick and wounded, it also was an "on the job" training center for new surgeons.³

Although there was some variation, the assignment of personnel became fairly well standardized in all hospitals of the Confederacy. Each station hospital was commanded by a Surgeon in Chief. Immediately below him were the Division Surgeons whose number depended upon the hospital capacity and treatment afforded there. They were responsible to the Surgeon for their own sections. It was the duty of the Division Surgeons to make up the monthly reports of sick and wounded, inspect the wards, and generally oversee the administration of their own units.

A lack of administrative assistants compelled the surgeons to devote much of their time to administrative duties. Each ward had a doctor appointed to care for patients assigned there. He would visit the ward twice daily to examine his patients. On off-duty hours, the assistant surgeon was expected to act as officer-of-the-day for his division.

To assist the surgeons, stewards were assigned to perform various duties in the hospitals. These duties included mess, administrative, and apothecary work. In addition, provision was made for wardmasters, nurses, aides, laundresses, cooks, a few clerks, baggage masters, and one chief steward. A great weakness resulted from the poor training these individuals received. Those who were capable of efficient hospital service were often dubbed "Hospital Rats" because of the feeling that they should have been at the front. In some cases the taunt might have been justified; but most of the male personnel if properly trained could have rendered a vitally needed service.⁴

This deficiency of male help led to the inevitable employment of women. Stout at first was reluctant to hire them because of several unpleasant experiences with them in Nashville, but their later achievements convinced him of their ability. The position of females was never made clear. The best way to describe their duties is to consider them matrons of the ward to which they were assigned. Their authority depended to a large extent on the individual. Some developed into regular administrators,

while others never got beyond the bandage rolling stage.⁵

One of the most remarkable women to emerge in American medical history, and one of the ablest administrators serving the Confederacy, was Ella Newsom Trader, the founder of Newsom Hospital in Chattanooga. This widow had first proven her worth at Bowling Green in the winter of 1861 when she almost singlehandedly organized the hospital in that area. She not only volunteered her services, but her material wealth as well.

In December, 1861, this determined woman set out for this new field (Bowling Green) with her own servants and a carload of supplies. All this was done at her own expense. She found a lack of everything that was needed for the sick and wounded soldiers, from buildings, fuel and blankets to the most ordinary medicine and plain food. Here Mrs. Newsom labored from four o'clock in the morning until evening and often until twelve at night. She was given charge of all hospitals and had obtained the best possible results under the distressing conditions when the surrender of Forts Donelson and Henry compelled her to move to Nashville.⁶

It was during the move to Nashville that this resourceful woman found it expedient personally to commandeer a locomotive when the trainload of men she was escorting to the hospital was left stranded enroute to Nashville.

Chattanooga was really the first place Mrs. Newsom could settle down and perform the wonders in administration which were so sorely needed at that time. Winning the support of Stout she made her Newsom a truly model hospital which, if need be, could accommodate 700 patients. Consistent in her service until the end of the war, this lady was present to tend to the wounded at Nashville, Corinth, Chattanooga, Marietta, and Atlanta. She was as responsible as any one individual can be for the service available in the theater in which she served.⁷

One of the ablest women who first rendered their aid was Kate Cumming. She was of Scotch ancestry and had moved to Mobile as a girl. As was Mrs. Newsom a capable administrator so was Miss Cumming to prove her ability in the field of practical nursing. Her first service took place at Corinth where, immediately upon

emerging from the train, she pitched right in and began removing filthy clothing, feeding the men, and rolling the ever-needed bandages. From that time on, wherever aid was most needed Kate Cumming was present. She went to Okolona from Corinth. From there she went to Chattanooga, Newman, Americus, Montgomery, Mobile, and back to Griffin, Georgia, where the end of hostilities found her.

Miss Cumming was one of the few women who worked on the battlefield at Chickamauga. During her four years of service she was once overturned along with a trainload of wounded; she actually was caught in one skirmish and at the end of the war she was left stranded without even passage home to Mobile. Constantly observing, she saw the need of many improvements and left behind a record of her experiences which paints a vivid picture of the constant tragedy that was a hospital during the Civil War. This nurse was devoted to, and held great respect for both Mrs. Newsom and Dr. Stout.

A really remarkable group of women, who were most active in the treatment of the wounded, were the Sisters of Charity. This Catholic order devoted to the task of caring for the poor is mentioned in all study of medicine. During the Crimean War the following dispatch was sent to his paper by William Russell:

The French are greatly our superiors [in medicine] . . . their medical arrangements are extremely good, their surgeons more numerous, and they have the help of the Sisters of Charity . . . these devoted women are excellent nurses.

It was this article which prompted one reader to ask, "Why have we no Sisters of Charity?"⁸

The Sisters served both the North and the South in their struggle. They probably came to be recognized as the only true non-belligerents. Seldom, if ever, were they interfered with in their ministrings to the suffering. In the early days of the war they were really the only experienced nurses. Admired by all, especially the surgeons, one attribute they possessed was that "they knew how to keep quiet."⁹ Capable of performing many duties at a hospital, they were not only matrons but also stewards and druggists. They performed all

duties not requiring professional knowledge.

With the exception of Chickamauga these women nurses limited their activities to the hospitals. An exception was Mrs. Betsy Sullivan, who accompanied her husband to the front. She became known as the "Mother to the First Tennessee Regiment." She helped nurse the sick and wounded, cooked food for them, mended and darned their socks, and sometimes washed their clothes. She actually worked on battlefields, carrying bandages and canteens of water.¹⁰

Women were also used in the army as laundresses, cooks and baggage attendants. Their initial acceptance into the service was thought to be temporary to relieve army personnel shortage, but it was not long before the surgeons realized that they must be retained permanently.

One last attempt to solve the problem of obtaining male attendants was through the use of free Negroes. Some animosity resulted from this experiment, however, and the scheme was soon abolished. As mentioned earlier, the basic weakness of a lack of trained male orderlies remained throughout the war.

2. Problems in the Hospitals

The most disputed point in any examination of Civil War medicine is that of medical treatment. It has been said that the archaic state of medicine in this period caused many practices which would seem barbaric to any practitioner today. But these treatments were the result of an honest ignorance and not willful negligence.

Other basic handicaps which were never truly overcome were shortages of supplies and a professional ignorance among the untrained personnel. Shortages really existed in three fields: medicine and supplies, hospital space, and transportation.

A source of revenue which enabled surgeons to obtain materials not available through regular channels and which provided flexibility in the purchasing of items required only in the hospital system was the hospital fund. This fund was allotted to the hospitals by a governmental allowance based on the number of patients being treated. Stout advocated full use of it, but

demanded strict accounting of expenditures, and encouraged such methods as bartering to obtain needed materials. These varied from such items as dental materials to leather for cobbling shoes. In some of the hospitals potters were actually employed to lessen the shortage of dinnerware. Finally, in order to have a unified buying system, he appointed a head quartermaster to supervise the whole program.¹¹

Since the Confederate government in many instances would not, or could not, supply rations, the hospital fund was frequently used for food purchases. This method was doomed to failure for two reasons. First of all, the allotment could never keep pace with the rising cost of living; and the merchants and farmers were reluctant to accept the money. The bartering that was encouraged by Stout went a long way in relieving this situation, but there were times when the hospitals suffered real shortages. At Newsom during one period the situation was almost grim. Miss Cumming records in her diary:

19 September, Milk short . . . no money. Dr. Young gave us wine . . . arrow root . . . several kinds of spice. No fund as yet in commutation . . . hospitals in debt . . . no money till their due is up. 15 October . . . again no money . . . Provisions arriving from Nashville . . . beef, bread, coffee.¹²

Some aid was received from private contributions and organizations. However, no united effort, such as the Sanitary Commission in the North, was made in the South to render private aid. All organizations were on the local or state level and too often were occupied with helping only people from their own communities.

Some private organizations did do outstanding service, and these included the Hebrew Aid Society of Mobile, the Military Aid Society, the Georgia Aid Association, and the Women's Relief Society.¹³ With the lack of coordination the societies' efforts were sometimes misdirected. One relief shipment included sardines and oysters when much more staple products were required.¹⁴

Stout instituted one requirement which led to much adverse comment. He stated that following every meal all patients would eat one raw onion to make up for any diet

deficiencies.¹⁵ That it was of some value is of no doubt since one good-sized onion contains almost a third of the adult requirement of vitamin B₁ and about half the minimum requirement of vitamin C.

The food situation varied with the location of the hospital. At Mobile, in the Ross Hospital, "a list of food and whiskey given to patients was kept" and in addition to basic foods they received "many pretty things." At Okolona Miss Cumming found that "the men get only one meal and that of badly made bread and as badly made soup."¹⁶

A typical diet when supplies were available was as follows:

Breakfast

Butter cakes
Rice and stale bread
Toast, milk, tea, coffee

Dinner

Soup (beef or chicken)
Potatoes
Beef
Dried fruit
Pudding

Supper

Dried fruit
Tea
Toast
Coffee

Special Diet

Beef and tea
Arrow root
Sugar
Boiled milk

There were seldom any eggs; rarely, if ever, any fresh fruits.¹⁷

The food provided the patients was seldom of top quality, but the appeal of it changed with the seasons and areas and was the best that could be provided.

One group of individuals who merited ill treatment but unfortunately brought it upon others were the malingerers and shirkers who used the sick call to avoid hazardous or tiresome duties. They made it difficult for those who really suffered from ailments that were difficult to detect, such as rheumatism. The surgeons were generally too lenient, with the result that frequently hospitals were burdened with these undesirables. In other cases the surgeons were overly suspicious and turned away men who were really ill. Rare indeed is the surgeon, even today, who can diagnose correctly in all cases.¹⁸

Apparently the hospitals hit their low point in cleanliness following an engagement. The overcrowded conditions which resulted were the reason for this. Normally the majority of hospitals had a surface cleanliness. Whitewash was used to achieve this result. Stout also particularly emphasized that all patients should be afforded clean washing and relief facilities.¹⁹

Bragg, Foard, and Stout were all agreed that personal inspections were a prerequisite to the enforcement of their regulations. In order to obtain aid in this task, they appointed competent aides to inspect and render periodical reports on the condition of the various medical establishments.²⁰

A constant harassment was the problem of providing clothing for the patients. This included not only ward clothing but also clothing to be worn after the patients were released. Usually the uniform worn upon entry was in such a miserable condition that it was burned. Continual clothing drives were sponsored to combat this situation.²¹

At Corinth and immediately following its evacuation, the hospitals suffered from a lack of sufficient bedding. This situation was corrected at Chattanooga; but when the abandonment of that place occurred, there was again a shortage.²²

Shelter, while crude in many instances, was adequate. In some hospitals tents were used, and it is interesting to note that infectious cases were more likely to recover in them than in closed wards. One nurse stated,

We have two very large sheds put up; one is on the court-house square. They have board roofs and tentcloth sides, so as to be raised up or down, as circumstances require. They are twelve feet in width and one hundred feet in length, with bunks arranged on each side, with an aisle in the center about five feet wide. I think this is the best arrangement that can be made for wounded in the summer. They are well ventilated and have none of the inconveniences of tents. Post Surgeon Weble has always been an advocate of them and these have been put up at his suggestion.²³

One source of comfort for the men that was sadly lacking was the hospital chaplain. Newsom Hospital with seven hundred patients had only one chaplain. The vast majority of hospitals had none at all.²⁴

Hospital patients directed bitter criticism against the male attendants. There appears to have been universal acclamation for the women nurses while the opinions vary regarding the surgeons. One patient stated, "The surgeons are attentive and kind."²⁵ Another made this accusation: "He [the surgeon] sees so much of suffering and sickness that he becomes callous." This same officer later wrote home, "Every attention is paid me by others; the attendants are very kind, the hospital clean and nice."²⁶

The emotional factor was recognized by some of the doctors. One states, "I have long ago observed that the mental treatment of disease and injuries is as important as their physical management."²⁷ One method used to treat these "emotional" cases was to employ them as recruiting teams to occupy their otherwise idle time.²⁸

However, with all the kindnesses, all the consideration, all the efficiency, the daily tragedies which occurred in the hospital could not be eliminated. Miss Cumming catches the scene vividly:

At home when a member of the family is about to go to his last resting place, loving friends are around the couch of the sufferer, and by kind words and acts rob King Death of half his terror and smooth the pathway to the valley and shadows of death. But here a man near dissolution is usually in a ward with perhaps twenty more. To wait on that number a single man keeps vigil. He knows that man will likely die during the night, but he cannot spend time at his bedside, as others need his care. The ward is dimly lighted, as candles are scarce; the death rattle is heard; when that ceases the nurse knows that all is over. He then wakes some of the other nurses up, and in the silent hour of the night these men prepare their comrade for the tomb, and bear him to the dead house. The surgeon, when going his rounds the next morning, is not at all startled when he finds an empty bunk . . . he knows without asking what has become of the inmate. It is sad to see so many dying with no kindred near them to soothe their last moments.²⁹

Undoubtedly, even with the best treatment that could be afforded, the patients' lot in any of the hospitals can hardly be realized when the present day conveniences and considerations are known.

3. Evacuations through Georgia

Less than one year elapsed between the fall of Nashville and the establishment of the hospital system in Chattanooga, yet a

vast improvement was evident when the hospitals were forced to evacuate this center. The preconceived schemes of Stout began to bear fruit.³⁰

As early as the 30th of July, 1863, a suspicion that a movement was imminent was aroused when, for no apparent reason, the excellent hospital group at Rome, Georgia, was dispersed to other locations.³¹ In August that suspicion was justified when the order came to evacuate Chattanooga and move the four hospitals, Foard, Academy, Gilmer, and Newsom, to Marietta.³² The material carried included bedding, patients' necessities, ward and mess equipment, and essential professional needs. Such items as beds were left behind, since they were too cumbersome to carry.

The movement was made by both rail and wagon. The procedure as outlined by Stout was that the patients would be loaded and dispatched following an advance party which arranged for their receipt. With the patients went vital equipment and prepared rations to last until the kitchens could resume operations. After them came the rear clean-up party with the more burdensome equipment.³³ The seriously ill and the dying were left behind with attendants. Depending on the distance traveled, it would take from twenty to thirty days to complete the movement. The hospitals were scattered throughout the state of Georgia and concentrated on a line about 150 miles south and southeast of the front at Chattanooga. The main hospital centers included Macon, Marietta, Newsom, Griffin, LeGrange, Kingston, and West Point.³⁴

In Marietta any and all buildings that were required for treatment of the sick and wounded were confiscated for that purpose. Structures that were taken over included colleges, churches, court houses, theaters, warehouses, stores, asylums, and even bakeries. Newsom Hospital occupied the whole public square.³⁵

As soon as the hospitals began unloading in the Georgia communities, personnel met the hostility they had faced in Tennessee. The people were now faced with the stark reality of war and did not take kindly to it. They were also obsessed with the fear of disease and felt these "pest houses" should go. Many were faced with the per-

sonal loss involved in the confiscation of their property. One further factor promoting hostility were the large groups of refugees accompanying the hospital trains. These people served as a drain on an already over-extended supply system. Bitter sermons were preached against the commandeering of churches. One preacher stated that in Heaven "there would be no taking of churches for hospitals."³⁶ The hostility of civilians to the medical corps in this matter was more pronounced due to the retrograde nature of the conflict in the West.

It was in the period following the evacuation of Chattanooga that splendid aid and support was given the field forces at Chickamauga by the hospital personnel under Stout. All through the winter the ravages of disease and battle kept the hospitals operating at maximum capacity. One train carried 400 of the worst wounded into Newsom. That hospital, already filled to capacity, had to absorb this entire load. On another occasion "Three long trains came in from the front [near Dalton] filled with wounded, nearly all wounded in the head, face, and hands from fighting behind breastworks. Men crowded in an immense hall waiting for wounds to be dressed. As soon as this was done they were sent off to make room for more." There was constant rotation of the lesser wounded to the rear during this period.³⁷

By August of 1864 another general withdrawal had to be made. Again the move was either directly south or to the east on the fringe of what was to be Sherman's route. It was a very difficult thing for the personnel to embark once more on a wearisome month-long journey and again be forced to build up a new medical establishment. Despite sagging morale large centers were built at Americus in the south and Macon in the east.³⁸

The hardships of travel were difficult enough but a really disheartening event occurred at Americus. The hospital burned completely to the ground soon after its establishment was finished.³⁹

On these journeys there were many examples of self-sacrifice and heroism. At one junction a trainload of patients overturned, and the patients rescued had to be

distributed by wagon to hospitals on the way.

In the last great movement, in the winter of 1864-1865, disorder and some confusion were evident. This was the event which prompted the request by Foard that Stout establish hospitals at Corinth and support Hood's movement into Tennessee.⁴⁰ One such hospital movement was the dispatching of the Bragg and Foard Units from Americus to Montgomery. They left on the twenty-eighth of November and did not arrive at Montgomery until the thirtieth. The journey itself was less than 200 miles. Then Bragg continued on by boat to Selma while the Foard unit was set up in boxcars at Montgomery.⁴¹ The movement into Tennessee was given support, but the situation was hopeless with the small and thinly-spread medical resources of the department.

An idea of the improvisation which was practiced by the surgeons in the latter stages can be gained from this description by Surgeon Baruch:

[I] received a telegram announcing that 280 wounded from the battle of Averysboro were on the way to Thomasville [his location]. I immediately sent out an armed guard to bring all the men and grown boys to headquarters, impressed them with the fact that they must assist me in my necessarily hasty preparations. I commandeered two wagons, put two men in each, sent one to gather the pine straw, the other to gather pine knots. I commandeered a large number of girls from a female college to fill the straw sacks I had prepared. I went personally from house to house and obtained assistance from the women in baking bread and preparing rye coffee and bacon for the expected wounded. Next I had piles of pine knots placed in front of the buildings which, when lighted, illuminated the town so that when the train arrived the wounded could be comfortably unloaded.⁴²

Baruch converted a hotel, factory and church into hospitals.

Some hospitals moved back to locations they had occupied prior to Sherman's advance once he had passed on. Among them were the hospitals at Griffin, Georgia, which once were completely cleared, but at the end of the war again formed a medical center.

The movements of the Medical Department of the Army of Tennessee thus came in three great waves, with sporadic movements in between. The first occurred when

Chattanooga was evacuated; the second when Sherman invaded Georgia; and the third resulted from the attempted support of Hood in his invasion of Tennessee. It was at this time that the move back to previous locations also took place; and of course support was still rendered the forces retreating into the Carolinas. The fact that some semblance of organization remained at the end of the struggle is displayed in the following order issued in the dying moments of the Confederacy:

Confederate States of America
Surgeon General's Office
Charlotte, N. C.
April 6, 1865

Special Order
Surgeon S. H. Stout
Medical Director of Hospitals
Army of Tennessee

Will without delay select from the corps of medical officers serving under him the most efficient Officers in charge of hospitals, and report with them to this place bringing with them all the hospital stores, furniture, bedding, tents, etc. for which transportation can be arranged, and turning over the remainder to Surgeon Bemiss, who, without further orders, will assume control of the hospital department as medical director.

The following named medical officers have been reported to me as most efficient surgeons in charge of posts, all of whom he will bring with him if possible. Viz. Surgeons Saunders, Avent, Hunter, Foster, Evans, and Mulline.

Signed,
S. P. Moore⁴³

Hostilities ceased before this aid could be rendered, but the fact that the hospitals of the Army of Tennessee were capable of giving assistance at such a late stage in the struggle is significant. They were operating as a unit when the organization in Richmond had either been left behind due to immobility or else destroyed in the retreat.

(To be continued)

BOOK REVIEW

General Urology. By Donald R. Smith, M.D., Clinical Professor of Urology and Chairman of the Department of Urology, University of California School of Medicine. Second Edition, 322 pages. Los Altos, Calif.: Lange Medical Publications, 1959. Price \$4.50.

This manual is the best bargain, page for page, that the reader will find no matter how long he may search. It covers the subject of urology

thoroughly, with prolific and excellent illustrations as artistic as they are informative, and supplies a wide span of up-to-date references. The first 6 chapters are meticulous in spelling out the details of history, physical examination, roentgen interpretation and basic instrumentation. This is not done in the usual simplified and patronizing manner, but competently with a minimum number of words supplying a maximum number of facts, characteristic of the whole volume.

The inclusion of such a complete discussion on page 53 et seq. of presacral air insufflation is surprising; adequate means of diagnosing adrenal disorders are well standardized at this point and preoperative localization superfluous in view of the necessity for routine bilateral exploration of all adrenal growths. The statement on page 125 that nephrectomy is indicated in unilateral renal tuberculosis is no longer tenable when contrasted with the V. A. cooperative study on triple-drug therapy—in which no surgery has been necessary for over 5 years.

The chapter on general infections of the urinary tract and their treatment written by Dr. Ernest Jawetz is one of the best summaries available anywhere. The section on the neurogenic bladder is likewise outstanding. The completeness of the book even extends to a succinct, authoritative chapter on inter-sexuality. The total of 25 chapters also covers renal hypertension, psychosomatic urologic syndromes, urologic aspects of venereal diseases in the male, and an excellent chapter on trauma, in addition to the more standard subjects. This text is unreservedly recommended to all practicing physicians, and many future editions are predicted.

Synopsis of Ophthalmology. William H. Havener, M.D., Ohio State University. 282 pages, 189 illustrations. St. Louis: The C. V. Mosby Co., 1959. Price \$6.75.

This book is recommended to general practitioners. The subject matters covered are presented in a concise way, making it a handy general reference to problems pertinent to the eye which are encountered by general practitioners in their daily practice. Mention should be made of the chapters on "Diagnosis and Management of Eye Injury" and "Diagnosis and Management of Red Eye." These chapters probably cover the field of ophthalmology which are often encountered first by the general practitioners and such information serves as an invaluable guide to the proper therapy of ocular conditions which may lead to serious impairment of vision. Of interest, I believe, is the chapter on the "Value of Consultation and Referral." Many general practitioners do not refer certain ocular diseases, but continue treating them when such diseases demand the full attention of an ophthalmologist.

On the other hand, it is certainly not appropriate as a standard text for medical students.

The omission of the basic fundamentals to the intelligent understanding of ophthalmology as taught to medical students make this book far from being satisfactory.

Current Medical References. Edited by Paul J. Sanazaro, M.D., Associate Professor of Medicine, University of California School of Medicine. 504 pages. Los Altos, Calif.: Lange Medical Publications, 1959. Price \$3.50.

The author of this pocket-sized reference book had a good idea when he organized a group of men representing several interests in medicine in sifting out pertinent articles which have appeared within the last two decades and setting forth current concepts and knowledge relative to the selected topics. The publication of this reference book presupposes that it will be revised periodically and at short intervals to keep the references "current." The great value of this reference book is that here the physician may find listed hundreds of papers with anywhere from one to a dozen references under a given disease entity. One can see immediately the boon of such a reference book to the house officer or to the medical student, who wishes to go to the library and read something recent and good on the disease with which a patient has just been admitted to the ward.

To the practicing physician who has limited library facilities, but whose own office or the library of his hospital or local medical society has a limited variety of journals, it offers signposts for investigation of the literature at hand. The reviewer believes that Dr. Sanazaro is to be complimented for a good idea, for its implementation and hopes that the reference list will be kept "current."

Symposium on Glaucoma. Edited by William B. Clark, M.D. Transactions of New Orleans Academy of Ophthalmology, 1957. 300 pages. St. Louis: The C. V. Mosby Co., 1959. Price \$13.50.

The annual meetings of this Academy are rapidly developing an excellent reputation as an instructive medium of exceptional value. This text provides another example of how this reputation is being attained. The problem of glaucoma is considered from many angles, including anatomy, pathology, physiology, methods of examination, diagnosis, and methods of medical and surgical treatment. This book is not a re-writing of old ideas, but a lucid offering of the new concepts which have invaded the thinking regarding the problem of glaucoma in the past decade. The inclusion of the round table discussions and the illustrations add greatly to its value. To those who have attended this meeting the publication of this book is an event which has been eagerly anticipated. It is quite probable that they would recommend it to those not so fortunate.

ANNOUNCEMENTS

Papers Requested

The Section of Ophthalmology and Otolaryngology of the Southern Medical Association announces that they are now accepting papers by physicians of either specialty living in the area of the Southern Medical Association for consideration for presentation at the next annual meeting to be held in St. Louis, Missouri from October 31 to November 3, 1960.

The paper or an abstract of the paper may be sent directly to the Secretary, Dr. Albert C. Esposito, Suite 1212, First Huntington National Bank Building, Huntington, West Virginia as soon as possible.

Second Annual Pre-Convention School Health Meeting

The Second Annual Pre-Convention School Health Meeting, jointly sponsored by the American Medical Association and the American School Health Association, will be held on Sunday evening, June 12, in the Medallion Room of the Carillon Hotel in Miami Beach, Florida. This is the evening prior to the Annual Meeting of the American Medical Association.

An outstanding scientific panel on school health will be followed by a general discussion in which all those present may join. Since all professions concerned with the school health program will be represented, this is an unusual opportunity to learn the attitudes of others with whom physicians work in protecting the health of children.

If you plan to attend the Annual Meeting of the American Medical Association in Miami Beach, plan to attend the Pre-Convention Meeting on Sunday evening.

Symposium for General Practitioners on Tuberculosis and Other Pulmonary Diseases

The Ninth Annual Symposium for General Practitioners on Tuberculosis and Other Pulmonary Diseases will be held in Saranac Lake, New York, July 11-15, 1960. The registration fee for this five-day Symposium is \$60.00. A deposit of \$10.00 should accompany the application. This deposit is applicable to the total registration fee. The course is acceptable for 27 hours of Category I credit by the American Academy of General Practice. For further information write Box 627, Saranac Lake, New York.

Yale University School of Medicine to Celebrate Sesquicentennial

The Yale School of Medicine will celebrate a century and a half of existence on October 28 and 29 of 1960. The occasion will be marked by meetings, exhibitions and addresses suitable to the occasion. Among a notable group of guest speakers

will be Sir Howard Florey of Oxford, England. Complete details of the program will be announced later.

American Physicians Art Association

The 23rd annual exhibition of art works by American physicians will be held June 13 through 18 at the Miami Beach Exhibition Hall and Auditorium, it was announced by Lewis M. Johnson, M.D., President of the Association. This is in conjunction with the annual convention of the American Medical Association. Participants and prospective exhibitors may obtain further information from Dr. Kurt F. Falkson, 7 East 78th Street, New York City, Secretary of the Association.

West Tennessee Medical and Surgical Association

The annual meeting of the West Tennessee Medical and Surgical Association will be held in Jackson, Tennessee at the New Southern Hotel, Thursday, May 26, 1960. Registration will begin at 1:00 P.M.

Seminar in Arthritis and Related Diseases

A Postgraduate Seminar in Arthritis and Related Diseases will be conducted June 11-12, 1960, immediately following the annual meeting of the American Rheumatism Association and immediately preceding the annual meeting of the AMA. The meeting will be held in Miami Beach, Florida. This course is acceptable for eight hours Category I Credit by the American Academy of General Practice.

Physicians Recently Licensed in Tennessee

Farber, Sheldon, Clarksville
Hepler, Thomas K., Clarksville
Pettit, William A., Cleveland
Richmond, George, Brooklyn, N. Y.
Doster, John R., Jr., St. Marys, Ga.
Crowder, William W., Maryville
Burkhart, James M., Knoxville
Austin, David F., Memphis
Green, William O., Jr., Chapel Hill, N. C.
Austin, Charles N., Abingdon, Va.

Annual Meeting of Tennessee Pediatric Society

The annual meeting of the Tennessee Pediatric Society will be held May 16-17, 1960, at the Paris Landing Inn, Paris Landing Tennessee State Park, Buchanan, Tennessee. Guest speakers will be: Kenneth S. Landauer, M.D., New York, N. Y. C. Nash Herndon, M.D., Winston-Salem, N. C. Wm. F. Meaeham, M.D., Nashville J. C. Peterson, M.D., Milwaukee, Wisconsin Ernest McCoy, M.D., Nashville

All pediatricians and general practitioners interested in pediatrics are cordially invited to attend. Registration fee is \$3.00.

**The Scientific Exhibit
AMA Clinical Meeting, Washington, D. C.
November 28-December 1, 1960**

Application forms for space in the Scientific Exhibit at the Washington, D. C., Clinical Meeting of the American Medical Association, November 28 to December 1, are now available. They may be procured by writing directly to Charles H. Bramlitt, M.D., Director, Department of Scientific Assembly, American Medical Association, 535 N. Dearborn St., Chicago 10, Illinois. Applications close on August 1.

The "Hull" award will be presented for the first time at this meeting to the best exhibit on a scientific subject which has not been previously shown at a medical meeting. The award will consist of a gold medal and an honorarium of \$250. The winning exhibit will be approved for showing in the Scientific Exhibit at the 1961 Annual Meeting of the AMA which will be held in New York City.

Dr. Thomas G. Hull will personally present the award to the recipient.

American Association of Doctors' Nurses

TO: Editors, State and County Medical Journals

FROM: American Medical Association

April 20, 1960

An organization called the American Association of Doctors' Nurses recently issued a news re-

lease stating that "the American Medical Association will loan a part of its large collection of exhibits" to this group's convention in Miami, Florida, June 23 to 26, 1960.

This is an incorrect statement. The American Medical Association has not loaned any exhibits to this group.

Originally known as the American Registry of Doctors' Nurses, this organization, which mailed its promotional materials from Marianna, Florida, was said to be in violation of the Nurses Practices Act in Florida in 1958 by the Attorney General in that state.

The group moved to Washington, D. C. Last summer the Federal Trade Commission charged this group with misrepresenting itself as a non-profit organization and with giving customers the means to misrepresent themselves as registered, graduate or licensed nurses. The organization changed its name to the American Association of Doctors' Nurses and in a news release issued some months ago stated that "The American Association of Doctors' Nurses . . . has assumed the membership of the old American Registry of Doctors' Nurses."

Upper Cumberland Medical Society

The 66th annual meeting of the Upper Cumberland Medical Society will be held at Red Boiling Springs, on Tuesday and Wednesday, June 28-29. The meeting will be held at the Cloyd Hotel.

PLACEMENT SERVICE

The placement service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee.

Locations Wanted

A 28 year old married physician. Protestant. Graduate Wayne State University, Detroit. Desires location in Tennessee community of 25,000-50,000 for general practice. Prefers clinical work. Available July, 1960. LW-344

A 29 year old married physician. Methodist. Graduate Medical College of Virginia. Desires private practice in pathology in east or middle Tennessee community. Will consider assistant or associate practice. Available July, 1960. LW-350

A 30 year old married physician. Presbyterian. Graduate Medical College of Alabama. Desires assistant, associate or clinical practice in Ob-Gyn in Tennessee community of 25,000 or more. Available July, 1960. LW-351

A 31 year old married physician. Catholic. Graduate Indiana University. Desires location in Tennessee community of 2500 to 10,000 for general practice. Prefers private or associate practice. Available August, 1960. LW-357

A 39 year old married physician. Baptist. Graduate University of Tennessee. Desires location in small east or middle Tennessee community with hospital privileges for general practice. Will consider clinical or industrial practice. Available immediately. LW-361

Two general practitioners, ages 24 and 27, married. Graduates of the University of Tennessee. Desire to establish a joint practice in medium size community in Tennessee large enough to accommodate two physicians and which is accessible to a hospital. Available October, 1960. LW-362

A 37 year old married physician. Methodist. Graduate University of Arkansas. Desires private, associate or clinical practice in Ob-Gyn in east Tennessee community of 20,000-200,000. Available July, 1960. LW-363

A 32 year old married physician. Baptist. Graduate Medical College of Alabama. Desires clinical, assistant or associate practice in pediatrics in Tennessee community of 25,000-100,000. Available September, 1960. LW-371

A 31 year old married physician. Catholic. Graduate University of Tennessee. Board eligible in general surgery. Desires clinical practice in general surgery in Tennessee community of 25,000 or over. Available July, 1960. LW-372

A 37 year old married physician. Methodist. Graduate University of Tennessee. Desires private practice in general surgery in Tennessee community of 20,000 to 50,000. Available June, 1960. LW-373

Physicians Wanted

Middle Tennessee town has fund of \$25,000 to build clinic for general practitioner. Population 1,000, trade area 8,000. Located 72 miles from Nashville and about 32 miles from three hospitals. Agriculture and small industry. Excellent high school and elementary school. Adjacent to one of state's finest recreational areas. PW-123

Physician in west Tennessee town of 500,000 desires an associate for internal medicine practice. Office space and some equipment available. PW-126

Physician in northeast Tennessee community of 5,000 desires general practitioner to associate with him in his practice in northeast Tennessee and southern Kentucky. Hospital located in community. Office space and some equipment available. PW-132

Small central Tennessee community of 1,000 desires general practitioner. No other physician located in community. Fully equipped six room clinic available. Two hospitals totaling 75-beds located 14 miles away. PW-133

A small rural middle Tennessee community of 800 in need of general practitioner to replace physician who has left community to enter U. S. Air Force. Office space and hospital privileges available. Near good hunting and fishing area. Good location. PW-139

Physician wanted in middle Tennessee community of 12,000 to take over established practice. Present M.D. going overseas. Two 25-bed open staff hospitals located in community. Completely equipped office. Agriculture and small industry. Good churches and schools. Close to good recreational area. Excellent location. PW-140

Fully equipped ten room clinic available in east Tennessee community of 5,000. New Hill-Burton hospital. Clinic large enough to accommodate two physicians. All office equipment and records included in sale price. Present M.D. leaving for residency training. PW-141

Small southern Tennessee community of 700 in need of general practitioner to replace present M.D. who is retiring after 44 years service. Near hospital 15 miles. Close to large missile base. Good location. PW-142

Clinic in east Tennessee community of 5,000 has opening for board eligible internal medicine man. Newly constructed, fully equipped clinic. PW-143

M.D. in east Tennessee community of 28,000 is desirous of disposing of his well-established general practice. All office equipment included in sale price. Present M.D. going into another branch of medicine due to accident which left him partially disabled. PW-144

General practitioner interested in preventive and occupational medicine needed in industrial plant in east Tennessee community of 28,000. Office space and equipment furnished. Regular working hours, good salary, fringe benefits. PW-145

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Abstract of the Proceedings of the House of Delegates of the Tennessee State Medical Association Nashville, April 10-12, 1960

The House of Delegates of the Tennessee State Medical Association, meeting at the Maxwell House, Nashville, Tennessee on April 10 and 12, 1960, in conjunction with the 125th Annual Meeting of the Association, convened at 1:00 p.m., with Dr. Joseph W. Johnson, Jr., Speaker of the House of Delegates, presiding.

The invocation was rendered by Dr. John H. Burkhart, Knoxville, delegate from Knox County.

DR. BURKHART: "Almighty God our Father, Thou who art the giver of life, the sustainer of health and the conquerer of death, we humbly accept Thy dominion over the universe and gratefully acknowledge Thy love and care for each of us.

"We thank Thee for the high call to service which Thou has extended to us as physicians, the many opportunities which we have to serve Thee by serving those with whom Thou are most concerned—the ill, the troubled, the deranged and the poor. As Thou didst send Thy Son Jesus to heal and to minister, send us also to do these things in Thy Name.

"Bless, we pray, this House of Delegates as it seeks by executive consideration to act in a manner that will further the benefits which medicine as a profession can render to those whom it seeks to serve. Inspire us with the knowledge of Thy eternal presence in the affairs of this Society as well as in our individual affairs, and guide us to greater gains in the conquest of disease and death.

"Bless our homes, our families, our friends, our colleagues, our nation and its people, and keep us faithful to the principles of freedom, equality, individual rights, individual responsibilities, justice and mercy; for in those qualities and in Thee do

we place our trust and hope. Amen."

The Speaker called upon Dr. George L. Smith, Winchester, Chairman of the Credentials Committee, to report if a quorum was present. Dr. Smith stated that there was a quorum of the delegates registered.

The Speaker stated that the Minutes of the last regular session had been reproduced in the June, 1959, issue of the Journal of TSMA and requested that a motion be presented to adopt the proceedings as published. A motion was made by Dr. John B. Steele of Chattanooga, and seconded by Dr. W. O. Vaughan of Nashville, that the minutes of the last regular session be approved as published in the June, 1959, issue of the JOURNAL. **The motion was put to a vote and adopted.**

The Speaker announced the personnel of the Reference Committees of the House, which were as follows:

Committee on Credential

George L. Smith, Winchester, Chairman
John L. Armstrong, Somerville
W. E. Scribner, Kingsport

Committee on Amendments to the Constitution and By-Laws

Chas. C. Smeltzer, Knoxville, Chairman
Laurence A. Grossman, Nashville
John R. Thompson, Jr., Jackson

Committee on Resolutions

Carl A. Hartung, Chattanooga, Chairman
Merlin L. Trumbull, Memphis
Chas. C. Trabue, IV, Nashville

Committee on Reports of Officers

John H. Burkhart, Knoxville, Chairman
Rollin A. Daniel, Jr., Nashville
Baker Hubbard, Jackson

Committee on Reports of Standing Committees

A. J. Ingram, Memphis, Chairman
George K. Henshall, Chattanooga
James N. Thomasson, Nashville

Committee on Reports of Special Committees

E. L. Caudill, Jr., Elizabethton, Chairman
J. Tom Bryan, Nashville
Ben L. Pentecost, Memphis

**Committee on Outstanding Physician
of the Year Award**

R. B. Wood, Knoxville, Chairman
J. Paul Baird, Dyersburg
Jas. C. Gardner, Nashville

The Speaker announced that the House would receive petitions from county societies seeking charters. There were no petitions for charters presented.

The Speaker announced that the House would consider Amendments to the Constitution and By-Laws laying on the table from the previous year. There were no Amendments to the Constitution on the table to be considered.

Amendment to By-Laws**(Laying on table from last session)**

Amendment No. 4 would amend Chapter VII, Section 1, 2 and 3 by eliminating the language contained in these sections and substituting the following:

"CHAPTER VII, Section 1: The Council shall hold meetings during the Annual Meeting of the Association, and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet after the election of Councilors on the second day of the Annual Session for organization, and for the outlining of work for the ensuing year. At this meeting it shall keep a permanent record of its proceedings. Five Councilors shall constitute a quorum.

"Section 2: Each Councilor shall be the representative of the Tennessee State Medical Association in his district in matters pertaining to the conduct of members and of component societies. He shall make investigations and suggest solutions of problems which come to his attention. He shall make annually a written report of his activities to the Council.

"Section 3: The Council may recommend to the House of Delegates censure, suspension or expulsion of any member; or recommend to the House of Delegates censure or revocation of the charter of any component society after a hearing before such persons and in such manner as the Council shall direct; or may suspend or drop from membership any member for the nonpayment of dues. Any member shall be dropped from membership automatically upon the filing by any person with the Council of a certified copy of the final order or revocation of license of such member by any tribunal or competent jurisdiction. Any member suspended, expelled or dropped from the membership may be reinstated by the affirmative vote of the majority of the House of Delegates upon recommendation of the Council. It shall make such report or recommendation to the House of Delegates as it deems to the best interest of the Association."

Following the reading of the Amendment, Dr. William A. Garrott, Cleveland, proposed an Amendment to the Amendment as follows:

"Amend Section 3 by deleting the first sentence and substituting the following:

Section 3: The Council may recommend to the House of Delegates censure, suspension or expulsion of any member, or recommend to the House of Delegates censure or revocation of the charter of any component society after a hearing which the accused member and/or his counsel, as he may desire, or the accused component society's president and/or his council, as he may desire, has been allowed to attend and hear the charges and meet the party or parties who have preferred the charges against said member or component society, or may suspend or drop from membership any member for the nonpayment of dues."

Dr. Garrott pointed out that the reason for presenting the Amendment was that the Council could under the original proposal hold any kind of meeting and make its recommendations without any provisions for the accused party to have a hearing.

Dr. Carroll H. Long, Johnson City, spoke to the Amendment, pointing out that the Council had nothing other in mind than to

carry out the intent of Dr. Garrott's Amendment to the Amendment.

Following the discussion, Dr. Chas. C. Trabue, Nashville, moved that the Amendment be referred to the Committee on Amendments to the By-Laws for study and recommended that the Reference Committee study Dr. Garrott's proposed Amendment to the Amendment and report on Tuesday, April 12. **The motion was seconded, and unanimously carried,** and the Amendment was referred to the Reference Committee on Amendments to the By-Laws for further consideration.

Introduction of Amendments

Speaker Johnson called for the introduction of any proposed Amendments to the Constitution. There being none, he called for introduction of Amendments to the By-Laws.

Dr. John D. Hughes, Memphis, presented Amendment No. 1 to the By-Laws as follows: "Amend The By-Laws by deleting Chapter IX, Section 1 and Section 2 and substituting the following new Chapter IX, consisting of Sections 1, 2, 3, 4 and 5.

"Section 1: The annual dues shall be determined by the House of Delegates and shall be levied per capita on the active members of the chartered component societies. The annual dues shall be payable on January 1 of the year for which they are levied, but any component society reporting dues to the Tennessee State Medical Association shall be considered delinquent if payment of dues is not made by July 1 of the year for which they are levied. The secretary of each component society shall cause to be collected and shall forward to the offices of the State Association the dues for its members. Any member whose name has not been reported for enrollment and whose dues for the current year have not been remitted to the Secretary of the State Association on or before July 1 of the year for which they are levied shall stand delinquent until his name is properly reported and his dues for the current year properly remitted. Every active member of the Association shall receive the JOURNAL without cost.

"Section 2: A new member joining the Association for the first time, and who is

so reported after July 1 of a given year, shall pay one-half of the annual dues for that year only.

"Section 3: The Honorary members of any component medical society are exempt from payment of dues, but a complete list of their names, certified by the respective component medical society, will be kept in the headquarters office of the Tennessee State Medical Association. Likewise, a component medical society is required to report a list of its Veteran members who have been elected by that society and the JOURNAL will be furnished to Veteran members without cost.

"Section 4: The secretary or treasurer of each component society shall forward a roster of all officers, membership, a list of delegates to the House of Delegates of the Tennessee State Medical Association, together with a list of nonaffiliated physicians of the county if practical, and also a list of members who have died during the year, to the Executive Director of this Association thirty days in advance of the annual meeting.

"Section 5: The record of payment of dues on file in the offices of the Tennessee State Medical Association shall be final as to the fact of payment by a member of the Association."

Following the reading, Amendment No. 1 was referred to the Reference Committee on Amendments.

Dr. Baker Hubbard, Jackson, presented Amendment No. 2 as follows: "Amend Chapter V, Section 2 of the By-Laws by deleting Section 2 in its entirety and substituting the following:

"Chapter V, Section 2: The Speaker of the House of Delegates, at least sixty days prior to the annual session, shall appoint a Nominating Committee. The Committee shall be composed of at least three members from each Grand Division of the State. The Speaker shall designate one of the three members from the Grand Division from which the President-elect is to come to serve as Chairman of the Nominating Committee. No two members shall come from the same component society. It shall be the duty of the Committee to hold at least one open meeting at which any member of the Tennessee State Medical Association may

submit recommendations for the Committee's consideration. The Executive Director of the Tennessee State Medical Association at least thirty days prior to the annual meeting shall inform each component society, by mail or otherwise, of the names and addresses of the members of the Nominating Committee and the time and place where the open meeting is to be held. The presence of five or more members of the Nominating Committee shall constitute a quorum. The Nominating Committee shall report the results of its deliberations to the House of Delegates by submitting the names of one or more candidates for each of the offices to be filled."

Dr. Hubbard read an explanatory statement further clarifying the purpose of the Amendment.

Amendment No. 2 was referred to the Reference Committee on Amendments.

Introduction of Resolutions

COMPLETE RESOLUTIONS AS PRESENTED TO THE HOUSE BEGIN ON PAGE 254.

The Speaker stated that the next matter before the House was the introduction of resolutions. Delegates were directed not to discuss or debate the resolutions at the time of introduction, but read them only in order that the Speaker could get the resolutions before the proper Reference Committee. The Speaker stated that those persons interested in resolutions introduced should appear before the Reference Committee on Resolutions and express their views. It was pointed out that ample opportunity would be given for debate and discussion when the resolutions were reported out by the Reference Committee on Resolutions on Tuesday, April 12.

Resolution No. 1:

Dr. Baker Hubbard, Jackson, introduced Resolution No. 1 dealing with the medical care of veterans and relationships with the Veterans Administration. The Resolution placed the Association on record as opposing any federal medical care of veterans that were not service connected disabilities. The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 2:

Dr. John D. Hughes, Memphis, introduced

Resolution No. 2 concerning the activities of the Tennessee State Medical Association requiring increasing expenditures in order to conduct the programs and business of the Association. The Resolution asked the House of Delegates to approve a \$15.00 dues increase upon each active member of the Association to be effective January 1, 1961, and further stated that the best interests of the Tennessee State Medical Association required this action. A data sheet showing the dues of all state medical associations was presented for information of members of the House. The Speaker pointed out that the substantiating data would be included with the Resolution which was referred to the Reference Committee on Resolutions.

Resolution No. 3:

Dr. Henry T. Kirby-Smith, Sewanee, introduced Resolution No. 3 dealing with the corporate practice of medicine in the State of Tennessee. The Resolution called attention to actions relative to corporate practice by the Supreme Court of the State of Tennessee, as well as steps taken by the American Medical Association, and requested that action be taken by the Tennessee State Medical Association to define corporate practice. The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 4:

Dr. James A. Kirtley, Jr., Nashville, introduced Resolution No. 4 which dealt with the Medicare Program. The Resolution pointed out that a third party such as the government intervenes in the patient-physician relationship and endangers the continuation of high quality medical care. It also pointed out the various problems dealing with the contractual arrangements, a comparison of the tax supported health programs as against voluntary health insurance and the fact that dependents of military personnel could be cared for by physicians of the State without an actual contract with the government. The Resolution called for discontinuation of the Medicare Contract upon termination of the present contract, December 1, 1960. The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 5:

Dr. A. Roy Tyrer, Jr., Memphis, introduced Resolution No. 5 dealing with a substitute resolution regarding The National Foundation, as prepared by the American Medical Association's Committee on Relationships Between Medicine and Allied Health Agencies. The Resolution pointed out the contributions of The National Foundation in the field of poliomyelitis through research, professional education and certain aspects of the patient care programs in the past. The Resolution required assistance from the AMA in formulating guides for physicians involving in patient aid programs in local chapters of The National Foundation and for other similar agencies in the health field which render direct aid to patients. A set of guides was recommended for adoption by the AMA and that such guides be transmitted to all constituent Associations with the recommendation that all component medical societies adopt these principles. Resolution No. 5 was referred to the Reference Committee on Resolutions.

Resolution No. 6:

Dr. H. L. Monroe, Erwin, presented Resolution No. 6 concerning insurance utilization. The Resolution pointed out the various abuses of insurance plans that exist and reviewed efforts to combat these abuses. The Resolution requested that the House of Delegates recommend to county medical societies in Tennessee that they adopt their own resolutions requesting the staff of each hospital within the county society's area to establish a standing staff committee to be known as an "insurance utilization committee." The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 7:

Dr. Chas. C. Trabue, IV, Nashville, introduced Resolution No. 7 dealing with privileged communications. He pointed out that the Resolution was presented by the Legislative and Public Policy Committee of TSMA. The Resolution referred to a previous resolution adopted at the 1959 House of Delegates which directed that the Legislative Committee draft a bill to amend the Code of Tennessee to provide privileged communications for physicians. He pointed out the difficulties and possible jeopardy

involved with such a bill. The Resolution further stated that little was to be gained from such action since physicians already could handle the matter in an approved manner. The Resolution asked that the action of the 1959 House of Delegates be rescinded and that the Committee on Legislation not be required to seek a privileged communication law for physicians. The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 8:

Dr. Chas. C. Trabue, IV, Nashville, read Resolution No. 8 presented by the Legislative and Public Policy Committee of TSMA and dealing with the Medical Practice Act. Activities of the Legislative Committee in an effort to amend the Medical Practice Act in the 1959 Tennessee General Assembly were reviewed. The Resolution referred to a proposed Amendment to the Tennessee Code, Section 63-608 (Medical Practice Act) which had been distributed to members of the House, and requested that the House of Delegates approve the Amendment for introduction in the 1961 Tennessee General Assembly. (See proposed Amendment on page 258.) The Resolution further urged members of the House to support an intensive program of education to acquaint the membership of TSMA with the purpose and meaning of the bill in order that TSMA members could thoroughly inform their representatives in the 1961 Tennessee General Assembly of the true purpose of the Amendment to the Medical Practice Act. Resolution No. 8 was referred to the Reference Committee on Resolutions.

Resolution No. 9:

Dr. Chas. C. Trabue introduced Resolution No. 9, presented by the Legislative and Public Policy Committee, requesting the House of Delegates to go on record opposing the Forand Bill and Forand-type legislation. The Resolution required that TSMA oppose not only H.R. 4700 (The Forand Bill) but any other legislation which proposes to provide medical services through the mechanism of social security as an expanded method of governmental encroachment into the field of medical service. Resolution No. 9 was referred to the Reference Committee on Resolutions.

Resolution No. 10:

Dr. Dana Nance, Oak Ridge, introduced Resolution No. 10 dealing with a medical examiner system adopted by the Roane County Medical Society. The Resolution stated that the Roane County Society and Anderson County Bar Association had been working on this problem and recommended the sponsorship of legislation to establish a Medical Examiner System for the State of Tennessee. It further stated that the draft of a law could be made available. The Resolution urged the House of Delegates of TSMA to recommend inclusion of their proposal in the legislative program for the 1961 session of the Tennessee General Assembly. The Resolution and an abstract of the proposed medical examiner act was referred to the Reference Committee on Resolutions.

Resolution No. 11:

Dr. Oscar F. Noel, Nashville, introduced Resolution No. 11 which concerned the prevention of progeny of the criminally insane and mentally deficient. This Resolution pointed out that persons adjudged criminally insane and persons mentally deficient due to eugenic factors continue to propagate children despite the fact that they are unable to care for them. The Resolution also pointed out that some corrective measures were necessary. It was requested of the House that a special committee to study the feasibility of a law requiring tube resection and/or vasectomy for the purpose of preventing pregnancy in persons adjudged criminally insane, or mentally deficient due to eugenic factors, be made; and further that if the special committee found that such a law is feasible, that a report be presented to the House of Delegates at a designated time. The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 12:

Dr. Thomas S. Weaver, Nashville, introduced Resolution No. 12 regarding extension of prepaid insurance coverage for newborn. The Resolution pointed out that infants from birth to fourteen days of age are not generally included in insurance policies and also pointed out certain procedures that might exist and threaten life in this age group, and further that the incidence of these conditions is low compared with

the number of newborn infants. The Resolution called for action wherein attention be directed to insurance carriers in Tennessee, requesting them to consider extending hospitalization benefits to newborn infants requiring hospitalization beyond "normal newborn care." The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 13:

Dr. Harmon L. Monroe, Erwin, introduced Resolution No. 13 which dealt with the Indigent Aged. The Resolution pointed out that a need exists with respect to financing the health care of the indigent aged and further that TSMA actively opposes any type of federal legislation utilizing the social security tax system to provide health care for any group of our nation's citizens. The Resolution reviewed the experience of TSMA with the Tennessee Indigent Hospitalization Program and called for the House of Delegates to go on record as endorsing a national program patterned after the Tennessee Hospitalization Program as a positive method of providing for financing the health care of the nation's indigent elderly sick, and that TSMA's delegates to the American Medical Association introduce such a resolution at the 1960 annual meeting in Miami Beach. A summary of the operation of the Tennessee Indigent Hospitalization Program was included. The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 14:

Dr. John D. Hughes, Memphis, introduced Resolution No. 14 which urged the appointment of a doctor of medicine to the Board of Trustees of the University of Tennessee. The Resolution stated that in spite of the fact that the college of medicine in the University of Tennessee is one of the largest of the United States, the Board of Trustees of that institution does not contain a doctor of medicine. The House of Delegates was requested to go on record as urging the Governor of the State to appoint a doctor of medicine to the next occurring vacancy on the Board of Trustees of the University of Tennessee. The Resolution was referred to the Reference Committee on Resolutions.

Resolution No. 15:

Dr. Ralph O. Rychener, Memphis, intro-

duced Resolution No. 15 which pointed out that the word "Doctor" had been usurped by every conceivable irregular and quack physician, and also that the American Medical Association had urged all physicians to use the term "M.D." rather than Doctor wherever possible. The Resolution urged that the Southern Medical Association be requested to change its designation of "Doctors' Day" to "M.D. Day," or else discontinue the sponsorship of this project. The Resolution was referred to the Reference Committee on Resolutions.

The Speaker called for additional resolutions and since there were none, the House moved to the next order of business.

Reports of Officers

The Speaker announced that the next order of business of the House would be to hear the reports of Officers.

Report of the President

HARMON L. MONROE, M.D.

The President reviewed activities during his term of office and outlined travel performed on Association business during the previous year, listing the 18 national meetings covered and the county medical societies visited. It was pointed out that the problems facing organized medicine increase each year and that the Association is constantly faced with new problems in the field of national legislation as well as the revival of some of the previous ones not yet settled. It was stated that the past year had been one of the most important faced by medicine in the field of legislation.

Dr. Monroe stated that the Prepaid Insurance Program must be guarded and expanded. He reviewed the issues faced in the abuses of prepaid insurance plans and stated that organized medicine must use its good offices to guard against abuses, over-use and misuse by doctors, as well as by patients. The insurance industry must find ways to expand the programs to cover people heretofore considered uninsurable. The report stated that although progress had been made in the insurance industry in meeting some of the problems of aged persons, much yet is to be desired.

The President called for greater participation by physicians in the Association's

Tennessee Plan. It was stated that before the plan could be completely effective, every practicing physician in Tennessee should see fit to participate under the plan. Hospitals were asked to hold down costs and eliminate certain charges that may be considered by some as over-use or unnecessary charges.

The report called for the House of Delegates to pass a resolution urging county medical societies to adopt their own resolutions asking the staff of each hospital to set up insurance utilization committees to ward off abuses.

The report reviewed a letter and resolutions received by the President from the Tennessee Farm Bureau Federation urging that health care programs continue on a voluntary prepaid basis. The farm organization stated its interest in good medical care for farm people and the success of efforts to assure this care through voluntary prepaid medical insurance plans.

The President's report reviewed the activities and accomplishments of the Public Service Committee during the previous year and its tremendous step in the organization of the Tennessee Council on Aging. It was pointed out that the Governor of Tennessee had been most cooperative and anxious to assist TSMA with its Council on Aging. The activities of the Council were outlined and it was stated that one of the most important phases was the recognition accorded the Council on Aging by the Administration of Governor Buford Ellington. The report stated that the Association enjoyed an excellent relationship with the Governor's office.

The report pointed out the stepped up tempo of business handled by the Board of Trustees. Activities of the Council were reviewed and the President recommended that the Councilor District meetings be continued and that the basic and fundamental principles of medical ethics be made more fully known to doctors throughout the state.

The report dealt with the activities of the Woman's Auxiliary and the excellent progress made during the previous year. The Auxiliary was commended especially for its excellent activities in the field of legislation. Effective messages to members of Congress

about the Forand Bill were especially important from the Auxiliary.

Dr. Monroe's report discussed the increasing cost of operation of TSMA and he urged the adoption of a resolution presented to the House to effectively finance the Association's work. The report dealt with the testimony presented in behalf of the TSMA before the House Ways and Means Committee in Washington in July of 1959. It was stated that similar action was going to have to be taken on other measures in Congress in the years ahead. The report stated that members of organized medicine must be ready to take a stand and present testimony to back its beliefs.

The report was concluded with a statement of appreciation to the Association's members, officers, Board of Trustees, and committees for the honor and opportunity of serving as President. The President commended the work of the headquarters staff in making his work during the year effective.

The report of the President was referred to the Reference Committee on Reports of Officers.

Report of the Secretary-Editor

R. H. KAMPMEIER, M.D.

"The pages of advertising in the Journal of the Tennessee State Medical Association have continued to rise from year to year, and during 1959 reached an all-high of 918 pages. The number of pages of text is just about the same as last year, namely 524 in 1959 as against 530 in 1958.

"The Journal has continued its attempt to keep the membership informed of the activities of the Board of Trustees, House of Delegates and the special Committees of the Association during the past year. The President's Page and Editorial Section have tried to set forth the policies of the Association, particularly in the socio-economic field. A special effort has been made on the Editorial Pages to keep the Forand Bill before the members of the Association during these past five months especially, because of its importance in the period immediately before the opening of Congress and during the early weeks of its activities.

"The Editor acknowledges the able assistance of Doctors Addison B. Scoville, Jr.

and Albert Weinstein, as Assistant Editors."

The report of the Secretary-Editor was referred to the Reference Committee on Reports of Officers.

Report of the Board of Trustees

W. O. VAUGHAN, M. D.

Chairman and Treasurer

The Board had conducted four regular meetings during the previous year. An Executive Committee had been appointed to act between regular meetings, reporting all of its activities to the official Board. The Executive Committee was composed of the Nashville members of the Board, Drs. Gardner, Kampmeier, and Vaughan, with Dr. H. L. Monroe of East Tennessee and Dr. Julian K. Welch of West Tennessee.

The Chairman outlined the business transacted by the Board of Trustees at each of the regular meetings.

(April 15, 1959 Annual Meeting)

The press of business necessitated that the Trustees adopt the policy of conducting four regular sessions each year with the meetings to occur quarterly on the second Sunday in each quarter. The Board transacted the following items of business at the April 15th meeting in Memphis:

1. Heard a report from the Chairman of the Study Committee for the formation of a General Health Committee and from such study, the Board established a General Liaison Committee to deal with the many organizations that request liaison with TSMA.
2. Authorized the Executive Committee to proceed with the necessary expansion of the Headquarters Office Building.
3. The Board named the personnel to the Consultative Committee on the Administration of Voluntary Prepaid Medical Care Plans.
4. Referred the recommendation of the House Reference Committee to the Symposium Committee on Postgraduate Education, directing that the committee restudy the entire program now being conducted.
5. Approved mailing copies of the Inter-professional Code to all Tennessee physicians.

6. Appointed members to all special and standing committees.
7. Approved the financial audit of the Association's fiscal affairs for 1958, and the first three months for 1959.
8. Empowered the Executive Director to employ necessary personnel needed to conduct the business of the Association.
9. Empowered the Chairman of the Board to negotiate with the Nashville Academy of Medicine for an increase in rental for space occupied in the headquarters office building.
10. Approved the plan of re-organization for legislative activities.
11. Appointed a committee to review personnel policies of TSMA.
12. Empowered the Chairman to appoint members to a Research and Planning Committee for the purpose of studying the programs and policies of the Association.
13. Designated the Vice-Speaker to assign times and a schedule basis for persons desiring to appear before the House Reference Committee on Resolutions.

(July 12, 1959 Meeting)

The Board met for its regular quarterly meeting in Nashville on July 12th. Some of the actions of the Board were as follows:

1. Heard a report of the Executive Committee including (a) progress report on the headquarters building construction, (b) report from the Chairman relative to negotiations with the Nashville Academy of Medicine on rental increase, (c) report from Dr. Joseph W. Johnson, Jr. on personnel policies, (d) report from the Executive Director on business performed through the Headquarters Office since the last meeting of the Board.
2. Approved the financial statement covering six months operations.
3. Approved a group life insurance program for TSMA members.
4. Heard a report from the Chairman of the Legislative Committee on the activities of the Committee, and approved a recommendation for enlargement of the membership of the committee.
5. Studied and approved a report presented by the Prepaid Health Insurance Committee for a plan for persons over 65 years of age. It was recommended that this be presented to the House of Delegates in 1960.
6. Heard a report from the Public Service Director concerning the formation and purposes of the Tennessee Council on Aging. The Executive Director was instructed to notify appropriate officers of county medical societies and specialty organizations, urging participation of their members in any local conferences on aging in the respective communities of the State.
7. Approved the recommendation by the Consultative Committee on Administration of Voluntary Prepaid Medical Care Plans wherein members of Congress would be advised of the workings of the committee.
8. Approved participation by TSMA to co-operate with other Southern states in the sponsorship of a dinner for the House of Delegates of the American Medical Association at its meeting in Miami in June 1960.

(October 11, 1959 Meeting)

At the October meeting, the Board took the following action:

1. Heard a final report on the construction of the addition to the headquarters office building.
2. Heard a report from the Executive Director on activities conducted by the staff and services rendered to the membership, county societies and other organizations.
3. Accepted a report from the Chairman of the Tennessee Council on Aging, Dr. Thomas F. Frist.
4. Heard a report from the Chairman of the Legislative Committee, Dr. Trabue, on the results of the National Legislative Conference conducted in St. Louis. The Board approved the proposed statewide legislative meeting on November 15th in Nashville and designated \$500 to be made available for expenses of such a meeting.
5. Adopted the annual budget for the Association's fiscal year 1960.
6. Heard a report from the Executive Director outlining the status of the VA Hometown Care Contract between TSMA and the Veterans Administration.

7. Considered plans for the 1960 annual meeting.
8. Accepted the nomination of the Tennessee Academy of General Practice for the election of Dr. J. Paul Lindsay, Nashville, as the General Practitioner of the Year from Tennessee.

(January 10, 1960 Meeting)

The first quarter meeting of the year 1960 was conducted in Nashville. At this session the following business was transacted:

1. The Executive Director gave a report on the status of the annual meeting planning.
2. The Board recommended inviting Miss Kay Schuele of Memphis, winner of the National Science Fair Award, to be the guest of the Association during the 1960 annual meeting.
3. Designated the President to consult with the Public Service Director to approve News Releases on policy matters during meetings of the Board of Trustees and the House of Delegates.
4. Selected six physicians for nominees to the Governor for subsequent appointment to the State Board of Nursing.
5. Heard a lengthy discussion and recommendation by the Research and Long-Range Planning Committee on the financial problems facing the Association and adopted a resolution to be presented to the House for an increase in dues.
6. Heard a report from the Chairman of the Research and Planning Committee concerning re-organization of the operations of TSMA. It was directed that this matter be presented, for information only, to the House of Delegates for further study.
7. Studied a letter and three resolutions forwarded from the Tennessee Farm Bureau Federation covering the subjects of medical care, rural health, and social security.
8. Heard a report from Dr. John Hughes pointing out the necessary steps toward obtaining an appointment of a Doctor of Medicine to the University of Tennessee Board of Trustees.

The Chairman of the Board pointed out that many critical problems are yet to be faced, particularly in the field of legislation

in the coming year. He stated that better long-range planning was necessary to meet these problems.

Report of the Treasurer

The Treasurer's report contained the official audit conducted at the close of December, 1959; the audit being made by Grannis and Associates, CPAs of Nashville.

The report showed that the Association's dues payments from 2,501 members totaled \$61,800 for the year 1959. Advertising income totaled \$53,305.12 for the year, which represented an approximate 21% increase. Printing and publishing costs of the Journal, pamphlets and other such material showed a marked increase. The audit revealed a total income of \$127,837.26 for 1959. These funds were used for the programs and activities of the Association and for the general conduct of business.

The report stated that the budget for 1959 was \$109,500.00 and the Association had operated well within the budget. The budget approved by the Board for the fiscal year 1960 totaled \$111,085. The report stated that the Association's funds are used to provide services to the membership; to underwrite the programs of committees; to pay the salaries of the staff; to maintain the headquarters office; to operate the general business of the Association; to conduct existing legislative activities; to conduct the annual meeting; and to provide expenses of AMA delegates and committee chairmen attending national meetings and related activities.

One of the outstanding achievements accomplished during the year had been in retiring the remaining indebtedness on the headquarters office building. The debt in the amount of \$28,000.19 was paid in February 1960. The building was constructed without any assessment upon the membership.

The Treasurer recommended that the Association maintain at least a one year's budget as a reserve. He stated that this was the goal although it had not yet been met. He stated that TSMA is receiving the maximum results possible from the available funds. The excess of revenue over expenditures is reasonable and provides a working margin allowing for adjustments which are

required throughout the year for unseen expenses and projects. The Treasurer pointed out that further thought should be given by 1961 to meet the mounting expenses of the Association.

The report of the Chairman of the Board of Trustees and Treasurer was referred to the Reference Committee on Reports of Officers.

Report of the Council

CARROLL H. LONG, M.D., Chairman

The Chairman of the Council stated that the ethical hygiene of the Association appeared to be good. A number of problems had been referred to the individual Councilors which had been resolved on a local basis in the respective Councilor Districts. No disciplinary action had been indicated on the part of the Council as a whole.

The report stated that in following the precept of the 1959 House of Delegates, the Council had caused to be presented in the various Councilor Districts, programs on medical ethics in which there had occurred frank discussion of these timeless values. Attention had been called to the absence of fee splitting; to the excellent achievement of discipline by hospital medical staffs; and to the changing socio-economic pattern of national life, and its influence upon the practice of medicine.

The Chairman stated that the Council was impressed with the self-imposed controls of hospital medical staff upon their own actions.

The report stated that current attempts in Congress to initiate compulsory medical expense insurance for social security recipients emphasizes the stake which the medical profession has in voluntary plans of prepaid hospital and medical insurance.

The report stated that the Council is currently concerned with several matters of general interest which are pertinent to its area of responsibility. It was reported that a study is being made of the boundaries of the Councilor Districts, since efficiency under the present plan had been questioned. The feasibility in allowing more than one component society in a single county in which sizeable cities of equal population lie at considerable distance from each other was reported under study. The Council

also reported concern with the size of component societies, and stated that these matters were mentioned because of their common interest and any conclusions reached by the Council would be reported to the House of Delegates at a later date.

At the conclusion of the Report of the Council, the Chairman requested permission to submit a supplemental report. In the supplemental report, the Council sought the approval of the House of Delegates for a study by the Council, for which a report would be made at the 1961 session, dealing with the boundaries of Councilor Districts looking toward revision of these boundaries in a manner to improve the effectiveness of the work of the Council and of the component societies.

The report of the Chairman of the Council was referred to the Reference Committee on Reports of Officers.

Report of the Executive Director

MR. J. E. BALLENTINE

The report of the Executive Director was abstracted for conservation of time and convenience of members of the House.

The report dealt with the activities of TSMA and the headquarters staff during the year in rendering assistance to the membership, the Board of Trustees, the Council and the Committees in their work, and pointed out that implementing these activities is a primary preoccupation of the staff. The report stated that an increasing position of importance is realized by TSMA since it is assuming more and more a position of greater leadership. The report stated that this Association is now the 17th largest state medical association among the fifty states.

The report dealt with the services of the Association and the increase in these activities. It was also pointed out that the Executive staff is continuing to make a major effort to establish good liaison with the Association's fifty component societies and with the membership. The objective has been to develop an informed and active membership.

The report revealed the retirement of the outstanding indebtedness on the headquarters building, pointing out that in just over five years and without any assessment upon

the membership, the headquarters building was erected, an addition to the building completed and put into service in October, 1959, and finally the indebtedness retired.

The report dealt with the legislative activities of the staff during the year, particularly relating to H.R. 4700, The Forand Bill. A review of the statewide legislative meeting conducted in Nashville in November was presented.

The work of the prepaid health insurance committee, personnel changes, postgraduate education, and other staff activities were reported to the House. Up-to-date information on the membership of TSMA was presented, as well as a report of the number of physicians deceased during the year.

The cost of printing the Journal and other Journal activities were reported. The finances of the Association were discussed in detail and the method of handling these details were reported. Other activities reported, included a complete report of the Medicare program, public service activities, the Tennessee Plan, annual meeting arrangements, and official travel of the Executive Director. The House was informed that the Executive Director during the previous year visited all ten councilor districts as called for in the By-Laws, spoke before fourteen county medical societies throughout the State and addressed some of the larger related medical and para-medical organizations within Tennessee. Quarterly lectures of one hour each were made by the Director at the University of Tennessee College of Medicine. The report revealed that he had attended nine regional and national meetings of vital interest to the Association's business. These included the meetings of the AMA House of Delegates, the AMA Public Relations Institute, Regional Legislative Conferences and others pertaining to prepaid insurance, medical economics, ethics and licensure.

The report revealed recommendations to the House concerning insuring the aged, legislation and financing.

It was pointed out that this was only a general review of the more important aspects of work and activities of the Tennessee State Medical Association and headquarters staff.

The report concluded with a pledge that

the Executive Director and members of the staff would continue to do everything possible to intensify communications and develop a well-informed, alert and participating membership.

The report of the Executive Director was referred to the Reference Committee on Reports of Officers.

Reports of Committees

The Standing and Special Committees were given the necessary time to make their reports where the committee chairman felt that additional time was indicated. The following committee reports were submitted:

Standing Committees

Report of the Committee on Scientific Work—R. H. Kampmeier, M.D., Chairman

"The report of this Committee at the meeting in 1959 presented the background of the action of the Board of Trustees in the previous year in providing stipends for out-of-state speakers invited to the Annual Meeting by certain of the specialty groups.

"This practice has been continued as is shown by the program of the current annual meeting. In the planning and preparation of the program, the following Committee had been appointed by the Board of Trustees. For the special societies to which the \$100 stipend was to be allotted for the meeting of 1960, the following were appointed:

Dr. Irving R. Hillard for General Practice

Dr. Baker Hubbard for Surgery

Dr. James W. Ellis for Obstetrics

Dr. Robert M. Foote for Psychiatry

Dr. J. J. Range for Radiology

Dr. Ira T. Johnson, Jr. for Thoracic Surgery

Members of the Committee from the profession at large were the following:

Dr. E. White Patton

Dr. Henry B. Gotten

Dr. John H. Burkhart

Dr. Albert Weinstein—from the Editorial Board

Dr. Addison B. Scoville—from the Editorial Board

Speaking for the Committee, it is our hope that the program for the annual meeting will prove of interest and be educational."

The report was referred to the Reference Committee on Reports of Standing Committees.

Report of the Committee on Hospitals

H. T. KIRBY-SMITH, M.D., Chairman

The Committee on Hospitals reported that it had presented a resolution in 1959 to the House to define corporate practice of medicine. The resolution was not passed. Instead a substitute resolution was adopted which instructed the Committee on Hospitals, in cooperation with the Council, to study the corporate practice of medicine and report to the 1960 meeting of the House of Delegates. The report pointed out that it was conceded that the definition of the corporate practice of medicine is employment of a physician by a corporation or agency which permits the sale of the services of a physician for a fee. The report stated that the committee was trying to determine when the corporate practice of medicine had to do with a corporation or agency making a profit from fees collected for services performed by an individual physician was conducted. The report stated that the Committee on Hospitals had met on four occasions in Nashville for the purpose of studying the corporate practice of medicine.

The report called for the House to define and go on record as opposing the corporate practice of medicine. It was pointed out that a resolution had been presented by the Committee to the House and if adopted, the committee will continue to investigate corporate practice and report to the House.

The report stated that it was important to remember that the corporate practice of medicine, constituted a real threat to our present system of medical care.

The report of the Committee on Hospitals was referred to the Reference Committee on Reports of Standing Committees.

Report of Legislative and Public Policy Committee

CHAS. C. TRABUE, IV, M.D., Chairman

The activities of the Legislative and Public Policy Committee had been extensive and diversified during the past year and the Chairman stated that it would be difficult to submit a brief yet comprehensive report.

The report stated that the first project of the committee had been to comply with the directives of the Board of Trustees which instructed the committee to organize the membership of TSMA into effective legislative action groups at the grass roots level. This directive stemmed from recognition of the fact that passage or defeat of legislation is obtained not in Nashville or Washington, but at the local level through close liaison and communications between physicians and lawmakers.

Actions taken and plans developed at the July meeting of the committee were reported as follows:

1. Expansion of the committee to provide for a member in each of the nine congressional districts of the state.
2. Drafting of a time table to schedule activities relating to TSMA's legislative program in the 1961 Tennessee General Assembly. This time table, as approved by the Board of Trustees, established the April meeting of the House of Delegates as the deadline for proposed TSMA-sponsored legislation in the General Assembly.
3. The drafting and printing of a guide to legislative action to assist physicians in carrying out their assignments with respect to state legislation. A copy of the guide had been made available to all members of the House.
4. Organization of a system of "legislative contact doctors" was established in order to promote closer liaison with state senators and representatives from the respective counties of Tennessee.

The importance of the legislative contact doctor was outlined and it was strongly recommended that county medical societies that did not have a legislative committee, take immediate steps to appoint one.

The report dealt with a directive from the House of Delegates in 1959 to present two legislative proposals in the 1961 General Assembly. The first dealt with the Medical Practice Act and a proposed Amendment was presented to members of the House.

The second dealt with a draft of a "privileged communications" bill which would permit physicians to refuse to testify in court relative to any matter which might

concern confidential information received from patients. The careful consideration of such a bill by the committee and the determination that such restriction coupled with the possible threat of prosecution would adversely affect the physician's determining the latitude in which he can present court testimony, were presented. The committee respectfully requested the House of Delegates to rescind its directive with respect to the privileged communications law. A resolution to this effect was prepared by the committee and had been introduced to the House.

In the area of national legislative activity, the committee reported that it had conducted intensive efforts to obtain defeat of the Forand Bill, H.R. 4700. It was reported that efforts were conducted to defeat the Forand Bill as early as 1957, however, they were greatly accelerated by the national legislative meeting conducted in St. Louis in October of 1959 by the AMA. A complete resume of the program and discussions presented at the national meeting on the Forand Bill were revealed. The report stated that the immediate objective was to contain the Forand Bill in the House Ways and Means Committee. With two Tennesseans on this committee in Congress, Tennessee became a key state for legislative activity concerning the Forand measure.

The Chairman of the Legislative Committee expressed his personal, as well as the committee's appreciation to individual physicians and county medical societies who vigorously participated in the anti-Forand campaign. Special commendation was issued to the Knoxville Academy of Medicine, Chattanooga-Hamilton County Medical Society, Memphis and Shelby County Medical Society, and to the Woman's Auxiliary for their excellent achievements.

The report dealt in considerable detail with some of the resolutions in favor of the Forand Bill adopted by city councils at Knoxville and Oak Ridge and the action taken by doctors in getting these resolutions rescinded. The report stated that although the Forand Bill would not likely pass in its present form, other Forand-type legislation could probably be enacted by Congress.

The Chairman also reported more fully upon the meeting sponsored by TSMA in

Nashville on November 15th. Representatives from the Chamber of Commerce, Business men, Nurses, Hospital Association Representatives, and many others were present at the statewide legislative conference. The report stated that similar meetings were held in Memphis, Chattanooga and Knoxville.

The report concluded by thanking members of the Committee for their faithful work, and commendation to members of the headquarters staff for playing vital roles in the above activities. It was stated that they had served efficiently and tirelessly in endeavoring to conduct the legislative program of TSMA.

The report of the Legislative and Public Policy Committee was referred to the Reference Committee on Reports of Standing Committees.

Dr. Ralph O. Rychener, Memphis, stated that correspondence from Senator Estes Kefauver placed him unequivocally opposed to the Forand-type legislation.

Dr. H. L. Monroe read a letter from Dr. F. J. L. Blasingame, Executive Vice President of the American Medical Association, addressed to the President of TSMA:

"On the occasion of the 125th annual meeting of the Tennessee State Medical Association, I want to take this opportunity to express the sincere appreciation of the staff of the American Medical Association, and my own personal appreciation to your State Medical Association, for the splendid program which has been carried out in the past few months in the field of national legislation.

"In the current struggle to forestall congressional action in the field of compulsory health insurance, the Tennessee State Medical Association has occupied one of the key positions in the entire nation. With two members of the House Ways and Means Committee, one member of the House Rules Committee, and one member of the Senate Finance Committee coming from your State, you have faced a tremendous challenge. We feel that the Tennessee State Medical Association has responded to this challenge in a magnificent manner.

"I hope that, on the occasion of your annual meeting, you will express our feelings to the officers; the Board of Trustees of

your State Association; the officers and members of your Committee on Legislation; the staff of your State Association and, if possible, the officers of the county societies for their splendid cooperation in presenting medicine's views on the problems of the aging to your congressional delegation from Washington and to the public as a whole in the State of Tennessee.

"Also please accept our best wishes for a most successful annual meeting. Yours sincerely,

/s/ F. J. L. Blasingame, M.D."

Dr. Monroe moved that the letter be made an addendum to the report of the Legislative Committee. The motion was seconded by Dr. Rychener, put to a vote and **unanimously adopted**.

The addendum to the report was also referred to the Reference Committee on Reports of Standing Committees.

Report of Liaison Committee to the Public Health Department

BLAND W. CANNON, M.D., Chairman

The Chairman stated that no business had been referred to the committee during the year, and therefore a report was unnecessary. It was pointed out that liaison was strictly maintained with the Public Health Council and that the committee was kept informed of the activities of the Council. The report was referred to the Reference Committee on Reports of Standing Committees.

Report of the Insurance Committee

B. F. BYRD, M. D., Chairman

The following report which dealt with the various group insurance plans for members of TSMA was presented:

"Sick and Accident Plan: There were 119 new contracts written with net increase of 65, making a total enrollment of 948. The Smith, Reed, Thompson and Ellis Agency has moved a full-time agent and family to Memphis where he will remain until every uninsured member in West Tennessee has been solicited. Such action will tend to keep the plan in a healthy state. One hundred twelve claims were paid for a total of over \$73,000.00.

"Professional Liability Plan: There are 629 doctors now enrolled, a net increase of 42. The claims pending and those filed dur-

ing 1959 total 66; 32 claims were closed without payment, 14 were paid with 20 still pending. Late in December we were advised of a change in rate schedule as of January 1, 1960. We promptly applied to Insurance Commissioner for a hearing. This was granted at once, and the meeting was attended by representatives from your committee, the State Office and Nashville Academy. The facts, submitted by a large number of companies writing this type of business justified a substantial rate increase, so there was nothing we could do about the matter, however, we are sure that our relations with the department were improved.

"The major Hospital Expense and Overhead Expense Plans: These plans seem to be well managed and in very good shape.

"Group Life Plan: This plan submitted by Mutual Benefit of New Jersey went into effect late last year and has been exceptionally well received. As of now we have in force under the plan about 10 million dollars. Already there have been 3 claims paid, one death occurred long before a certificate was issued."

The report was referred to the Reference Committee on Reports of Standing Committees.

Report of Memoirs Committee

HENRY L. DOUGLASS, M.D., Chairman

The Memoirs Committee reported that during the calendar year 1959, 35 members of the Association died. (The names of the deceased physicians were read by the Chairman.) "The impact of these somber events falls heavily upon the State Society and also distresses many men and women in all walks of life throughout the State. Friends and colleagues alike mourn their death as a personal loss, which indeed it is, and a fine tribute to their memory." Following the above statement, the Chairman moved that the House stand for a moment in recognition of the deceased members. The House stood in silent tribute.

The report of the Memoirs Committee was referred to the Reference Committee on Reports of Standing Committees.

Report on Symposium Committee on Postgraduate Education

ROBERT A. DAVISON, M.D., Chairman

The committee reported that during 1959

a total of thirty-two post-graduate education symposiums were presented over the state. An average of sixteen doctors attended each program. The subjects presented throughout the state were (1) Athletic Injuries and Common Fractures, (2) Medicolegal Problems, and (3) Cancer Detection and Treatment.

The report stated that recognition should be given the physicians who took days from their busy practice to serve as panel members and a list of the participating instructors was read by the Chairman.

The subjects selected by the committee for presentation during the year 1960 were submitted as follows: (1) Obstetrics and Birth Injuries, (2) Medical and Surgical Diagnostic and Therapeutic Problems, and (3) Internal Medicine.

The report pointed out that centers where each symposium will be held during the year are selected by the committee according to doctor population, the need for postgraduate education programs in that area, and past attendance of local physicians in that city. The mechanics in which the programs are organized and produced were reported, along with measures being undertaken by the committee to stimulate interest.

The report stated that the first program in 1960 would be a regular symposium type of program and the second would be along the lines of a clinical pathological conference. The third series of programs will be conducted in the three medical centers in Memphis, Nashville and Knoxville. Complete arrangements had not been worked out but an all-day program will be presented in each of the three centers.

The results of an extensive survey conducted throughout the state by the committee was outlined to members of the House.

The report pointed out that the Committee was cognizant of the declining attendance during past years and it was requested that the committee be empowered by the House of Delegates to either discontinue or continue the postgraduate efforts to conduct courses, contingent upon the decision of the committee. It was also pointed out that whatever steps are to be taken, should be approved by the Board of Trustees.

A statistical summary of attendance for

each program presented, together with the composite results of the survey conducted throughout the state, were attached and a part of the report.

The report of the Symposium Committee on Postgraduate Education was referred to the Reference Committee on Reports of Standing Committees.

Report of the Cancer Committee

RALPH H. MONGER, M.D., Chairman

The report of the Cancer Committee pointed out that the Postgraduate Education Committee had been requested to include a subject on cancer detection and treatment during 1959. A program on this subject was presented in four Middle Tennessee, three West Tennessee and three East Tennessee cities, with a total attendance of fifty-one.

The report stated that the committee is offering its services to the county medical societies to assist them in presenting scientific programs on cancer. County Society Presidents and Secretaries had been notified of this service.

The report was referred to the Reference Committee on Reports of Standing Committees.

Report of the Grievance Committee

R. B. WOOD, M.D., Chairman

It was stated that no formal meeting had been conducted during the year since the committee had not been involved with any grievances appealed from county medical societies. It was pointed out that in several instances, grievances presented to the State Committee had been referred to Grievance Committees of County Medical Societies where a satisfactory settlement occurred. The report stated that the committee is available at all times to hear an appeal on any grievance from either doctors or patients.

The report of the Grievance Committee was referred to the Reference Committee on Reports of Standing Committees.

Report of the Advisory Committee to the State Department of Public Welfare

JAMES N. THOMASSON, M. D., Chairman

The report presented the action taken by the Department of Public Welfare on the

recommendations which had been made by the Advisory Committee. Additional medical review officers had been recommended in thirty-five counties. Presidents of County Medical Societies, medical review officers and participating hospitals had been furnished with the rules and regulations governing public assistance hospitalization, including the duties of the medical review officers. The number of days for which the welfare department could pay hospitalization was reduced from thirty to ten days.

The report outlined a number of problems presented by the Welfare Department to the Committee. These included: (a) The necessity for an equitable plan for payment to hospitals in cases involving private hospitalization insurance; (b) Need to improve the understanding between the medical review officers, hospitals and Department of Public Welfare; (c) Need to adjust the fee schedule for authorized examination; (d) Need to decide how to use funds accumulated due to the reduction in days coverage of hospitalization; and (e) Necessity for cooperation of the medical profession and additional physicians to provide for an increasing number of general and special examinations for persons whose disability must be determined as a factor of eligibility for assistance.

The Advisory Committee to the Department of Public Welfare made six recommendations to the Department which are as follows:

1. That the Advisory Committee be increased to include an orthopedic surgeon, a general surgeon and a general practitioner, to be selected from the state at large.
2. That the Department of Public Welfare pay the difference between the amount paid by hospitalization insurance and the cost for the first ten days, not to exceed contracted per diem rate paid to that hospital.
3. That the decision of the medical review officer continue to be final, and that the Department's local staff contact the medical review officers to discuss limitations of hospitalization.
4. That the Department's application form for hospitalization for public assistance recipients be modified.

5. That the present examining physicians be asked to suggest appropriate adjustments in the fee schedule.

6. That the chairman appoint a sub-committee to study and make recommendations to the Department regarding the use of money accumulated by the Department due to the reduction of the number of days of hospitalization coverage.

Other studies being conducted by the committee were discussed by the Chairman.

The report was referred to the Reference Committee on Reports of Standing Committees.

Report of the Prepaid Health Insurance Committee

JAS. A. KIRTLEY, JR., M.D., Chairman

Since the 1959 annual session and report to the House of Delegates the Prepaid Health Insurance Committee had conducted only one formal meeting. The report stated that three meetings of the Executive Sub-Committee had been conducted since April 1959. The report included the committee's study and awareness of the very complex problems concerning the insuring of the aging. It was reported that studies had been made to determine the feasibility of establishing a "Senior Citizens Policy" for the aged. Plans submitted by the Tennessee Hospital Service Association (Blue Cross—Blue Shield) and suggestions made by the Health Insurance Council which represents the leading commercial insurance underwriters in the country, were received. The report included a motion adopted by the Prepaid Committee to recommend to the House of Delegates that a Senior Citizens Policy be adopted, however, a later action of the committee rescinded this motion and the committee is continuing to study the problem. The report pointed out that the Chairman had requested several of the larger county medical societies to make suggestions and comments relative to this plan and no replies had been received. Delegates were urged to return to their respective county medical societies and bring the matter of insuring the aged before their county society membership for discussion in order to see if any suggestions and proper answers would be forthcoming on the problem. It was also brought out in the report that suit-

able concern exists on whether or not hospitals are working toward some type of reduced fee for hospitalization for aged persons.

The report stated that the committee had approved a recommendation from the Tennessee Society of Anesthesiology for inclusion of optional coverage for anesthesia benefits under the Tennessee Plan.

The report went into considerable detail pointing out the tedious and complex work of the Executive Sub-Committee in determining contested claims under the Tennessee Plan. The Executive Sub-Committee makes all recommendations on unlisted procedures in the plan.

The Executive Sub-Committee has studied the amount of participation by the public in the various optional riders included under the Tennessee Plan. Such riders include In-hospital Medical Care and Radiological Benefits. It was pointed out that lack of participation by many doctors in the plan is one of the major problems and one wherein the Association has been criticized, particularly by the Tennessee Farm Bureau Federation which comprises some 89,000 participants under the plan.

The report concluded by stating that 38 insurance companies underwrite the plan—that 1,122,000 persons in Tennessee are covered under the plan and that approximately 1700 doctors participate.

Medicare

Since the Executive Sub-Committee also serves as the Committee on Medicare (Dependents Medical Care Program) this report was included as an addendum to the Prepaid Insurance Committee report.

It was pointed out that the plan had been drastically curtailed in 1958, but that on January 1, 1960, many of the procedures previously restricted had been restored under the program. The report went into detail on the manner in which the Medicare contract was negotiated.

It was stated that the fiscal agent reported that the Medicare program in Tennessee during the previous year had made a total payment of \$500,673.33 to Tennessee physicians.

The amount of continuing modifications and problems in administering the contract

were quite heavy and required daily administration through the headquarters office and by the committee.

The Medicare Committee strongly recommended that upon the expiration of the present Medicare contract, that the contract not be renewed. A resolution had been presented to the House of Delegates by the Committee pointing out the reasons why TSMA should not participate in an official contract for Medicare with the federal government.

The report was referred to the Reference Committee on Reports of Standing Committees.

Report of the Public Service Committee

ADDISON B. SCOVILLE, M.D., Chairman

The report stated that the Public Service Committee deals constantly with a great number of diversified projects each year designed to improve the relationship of the medical profession and the public in Tennessee. The report briefly described developments in Congress, particularly pertaining to Senior Citizens.

Details of the organization and work of the Public Service Sub-Committee on Aging were discussed in the report. The steps taken in forming the Tennessee Council on Aging were presented. Details of the planning and importance of the Tennessee Conference on Aging and the White House Conference on Aging in 1961 were revealed through the report.

The excellent relations that exist between the Tennessee State Medical Association and the Governor's office were outlined. It was stated that Governor Ellington had appointed the chairman of the Tennessee Council on Aging, Dr. Thomas F. Frist, as co-chairman of the committee to plan Tennessee's participation in the White House Conference.

The report stated that other activities of the Public Service Committee during the year included the appointment of a Sub-Committee on Youth and Education and under the guidance of this sub-committee, a series of regional athletic injury clinics were held throughout the state, co-sponsored by the TSMA and the Tennessee Secondary Schools Athletic Association. The sub-committee also conducted surveys relative

to information on health problems of Tennessee's youngsters.

The work of the committee's health education television program was reported. A health booklet prepared by the committee to assist medical societies and auxiliaries in their health career recruitment activities was reported.

Assistance rendered to the medical assistants society of Tennessee was discussed. Continuing activities including the operation of the placement service; efforts to improve relationships with news media; programming for county medical societies and non-medical groups; cooperation with other agencies in the area of promoting traffic safety, and the maintenance of close liaison with other health agencies to foster inter-professional public relations, were revealed.

The report concluded by pointing out the necessity for a dynamic, continuing public service program at the county society level. A positive program is necessary and enthusiastic participating county medical society committee and officers are of vital importance. The report was referred to the Reference Committee on Reports of Standing Committees.

Report of the Committee on the Tennessee Medical Foundation

HARRISON J. SHULL, M.D., Chairman

The report stated that in keeping with action of the House of Delegates in 1959, the Committee on Tennessee Medical Foundation as appointed was officially nominated and elected to become the Board of Directors of the Tennessee Medical Foundation at a meeting conducted on June 28, 1959 in Nashville.

The committee had undertaken during the year 1959-60 to carry out a survey of health facilities in the state, for the purpose of ascertaining if there were areas existing which are in great need of medical services and areas which special services to meet these needs might be undertaken.

A survey is also underway with selected physicians throughout the state and public health officers, where they exist, in the several counties of the state, as well as the county agents of each county chosen to obtain information concerning medical needs in local communities. The report revealed

that 69 of the 95 counties are said to need additional physicians. Thirty-seven of these counties reported in the survey were in the East Tennessee area, 29 in Middle Tennessee and 13 in West Tennessee. The Committee's report stated that according to the most recent available figures, Tennessee had 3,380 physicians for its total population of 3,600,000 or a ratio of one doctor to every 1,100 persons.

The report revealed plans underway wherein the Tennessee Medical Foundation might explore ways and means of assisting local communities with their facilities for better medical care. The committee report recommended that pilot studies be made, and stated that the Tennessee Medical Foundation Committee is participating with other groups in its various studies, particularly of the possibilities for extending and improving laboratory services in the selected hospitals within the state.

The report of the Committee on Tennessee Medical Foundation was referred to the Reference Committee on Reports of Standing Committees.

The Rural Health Committee did not make a report to the House of Delegates.

Nominating Committee

The Speaker requested the delegates from the three grand divisions of the state to congregate in three areas of the room for the purpose of organizing a Nominating Committee. The Speaker appointed three temporary chairmen of the grand divisions for organization and election of a permanent Nominating Committee.

Dr. R. B. Wood, Knoxville, was appointed temporary chairman for the East Tennessee Division; Dr. James C. Gardner, Nashville, was appointed temporary chairman for the Middle Tennessee Division; and Dr. Wm. C. Chaney, Memphis, was named temporary chairman for West Tennessee.

Following the caucus of the delegates from each grand division of the state, the Speaker again called the House to order and announced the personnel of the Nominating Committee, which consisted of the following:

Dr. Jas. C. Gardner, Chairman, Nashville
Dr. C. B. Roberts, Sparta
Dr. Carl C. Gardner, Jr., Columbia

Dr. R. B. Wood, Knoxville
 Dr. Hiram Laws, Jr., Chattanooga
 Dr. Rae B. Gibson, Greeneville
 Dr. G. Baker Hubbard, Jackson
 Dr. John D. Hughes, Memphis
 Dr. Byron O. Garner, Union City

The Speaker announced that business should be transacted at the earliest possible time by the Nominating Committee. The Committee was directed to furnish the names of the candidates for Councilors from the First, Third, Fifth, Seventh and Ninth Districts. The Nominating Committee would make a report for nominations of Councilors later in the afternoon session.

The Speaker announced that the House would continue with hearing reports of special committees. The following special committee reports were rendered.

Special Committees

Report of Consultative Committee on Administration of Voluntary Prepaid Medical Care Plans

C. N. GESSLER, M.D., Chairman

The report outlined briefly the manner in which the committee was established by action of the House of Delegates through a resolution presented and approved by the House in 1959. It was pointed out that the committee recognized the increasing presence and importance of the third party's position in the physician-patient relationship. The report stated that the voluntary prepaid medical care plans are important to the future economy of the country and to the normal relationship between policy holders, doctors and insurance companies.

The report revealed the manner in which the committee had defined areas that should be of concern to doctors which may constitute abuses in this field, and presented a list of abuses determined by the committee to exist. The report included recommendations by the committee as follows:

1. That county medical society grievance committees be charged to adjudicate third party complaints as well as physician-patient misunderstandings.
2. Recommended that the Board of Trustees set up district grievance committees to consider grievances which cannot be adjudicated at the local level.
3. That further study in this field be made by the consultative committee, though not necessarily by the same membership of the committee.
4. That a spot pilot study of two metropolitan areas and three rural areas be authorized to determine, if possible, what degrees of misuse of hospital facilities actually exist. The committee recommended that \$2500 be allocated for the cost of conducting such a survey.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of the Disaster Planning Committee

MOORE MOORE, JR., M.D., Chairman

The Chairman of the committee was unable to attend and the report was read by Mr. Ballentine.

The report stated that the committee had been active during the year and that all county medical societies had been notified of the existence of twenty-four 200-bed emergency hospitals placed in strategic cities throughout the state.

County societies had been furnished with a list of the cities where the hospitals are stored and the name of the custodians. These hospitals can be put into use in the event of any type of disaster, either natural or man-made, by obtaining permission from the Director of Civil Defense in Nashville.

The report also revealed the committee's work in sending a questionnaire to the larger county medical societies to determine if they desired any help in organizing their over-all disaster program. The report concluded with the recommendation for more coordination between medical and non-medical disaster planning groups. Better liaison between city planning disaster chairman and state medical chairmen was recommended, and the report called for better liaison between the medical association and the National Safety Committee.

The Report of the Disaster Planning Committee was referred to the Reference Committee on Reports of Special Committees.

Report of Committee on Industrial Health and Workmen's Compensation

GEORGE E. DUNCAN, M.D., Chairman

The report stated that a revised copy of

the Workmen's Compensation Law had been mailed to all presidents and secretaries of county medical societies. It was also stated that the committee, in cooperation with the Tennessee Department of Labor, mailed a booklet of the revised law to all members of the Tennessee State Medical Association along with a letter answering some of the most frequently asked questions by physicians covering the compensation laws. The covering letter discussed the three basic changes in the Tennessee Workmen's Compensation Law and pointed out several technical items in the law which had been of some concern to physicians.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Liaison Committee to United Mine Workers of America

CECIL E. NEWELL, M.D., Chairman

The report stated that the Committee had been in frequent contact during the year with the Area Administrator of the UMWA's Welfare and Retirement Fund. It was reported that the Administrator had kept the committee fully informed of all problems in which a physician might have been involved.

The report revealed that few difficulties had arisen and these had been solved at the local level.

The report concluded by stating that no official complaint from organized medicine involving the UMWA or its Welfare and Retirement Fund had been made during the past twelve months.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Advisory Committee To the Woman's Auxiliary

HORACE D. GRAY, M.D., Chairman

The report pointed out that the Advisory Committee's report was essentially the report of the Auxiliary. The Woman's Auxiliary was commended for the work performed. The services of the Auxiliary in legislation, community service, public relations, mental health, civil defense, safety, recruitment in paramedical careers, aid to medical education, and many others, were

of vital importance to the growth and development of the Tennessee State Medical Association.

The report stated that every county society not having a chapter of the Woman's Auxiliary was urged to establish such a chapter and that the medical profession in the county should render all possible aid to the Auxiliary in their work.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Committee on Governmental Medical Services

BAKER HUBBARD, M.D., Chairman

The report stated that the committee's principal function concerns Veterans' medical care. All members of the committee had cooperated in watching proposed legislation concerning the committee's responsibilities.

The report outlined the contract with the Veterans Administration for Hometown Medical Care and the fact that the Board of Trustees of TSMA had authorized continuation of the contract to July 1, 1960. The contract is maintained on an annual basis, renewable each year, and changes can be made by the VA or the Tennessee State Medical Association provided such changes are presented by either party by January 1 of the year the contract is to be renewed. The report concluded by pointing out that the committee on Governmental Medical Services had presented a resolution to the House asking that the Tennessee State Medical Association go on record opposing hospitalization of veterans for non-service connected disabilities.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Committee on Tuberculosis

HOLLIS E. JOHNSON, M.D., Chairman

The report of the committee referred to the change in the law governing admission to state tuberculosis hospitals so that patients with chronic non-tuberculous chest diseases could be admitted to these hospitals provided they were indigent and unable to pay for their treatment. It was stated that the committee reported in 1959 that there was some objection to the word-

ing of Section 53-1621 as amended and that Dr. R. H. Hutcheson, Commissioner of Health, had promised to have the wording changed at the next meeting of the Legislature if the Tennessee State Medical Association desired it changed. The report stated that proposed changes were studied, but it was the final opinion of the committee that such changes were not necessary.

The report recommended that a standing committee on Tuberculosis be appointed by TSMA to serve in a liaison capacity between the Association and the Board of Trustees of the Tennessee Tuberculosis Hospitals, and further that the special committee be discharged since the purpose for which it was established had been accomplished.

The report concluded with appreciation to Dr. R. H. Hutcheson for his cooperation, and understanding in dealing with the complex problems faced by the committee.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Committee on Mental Health

FRANK H. LUTON, M.D., Chairman

The report outlined some of the goals and functions of the committee which were as follows: (1) Liaison between TSMA and activities within the state in the field of mental health. (2) Development of methods for the further training of physicians in the understanding and treatment of the mentally ill. (3) The stimulation of the physician to participate in community programs of mental health nature. (4) Liaison activities of the Committee on Mental Health with mental health committees of county medical societies and the Woman's Auxiliary. (5) The promotion of educational programs for the treatment and prevention of alcoholism, and in the mental health problems of the aged.

The report outlined in detail the conference conducted in Atlanta on October 8-9 of the Southern Regional Education Board. This conference was attended by two members of the Mental Health Committee. Other participants represented state medical and psychiatric associations, medical schools, and state legislatures.

The committee Chairman reported on activities of the American Medical Association's Council on Mental Health at the Sixth

Annual Conference of Mental Health Representatives of State Medical Associations. Recommendations adopted were reviewed in the report.

The report concluded by stating that the committee's activities dealt largely with educational projects and it was stated that it seemed appropriate that the committee's future should concern itself greatly with the study and promotion of educational opportunities in any area that will qualify the physician for better service to the sick patient. It was reported that an acute need existed for organized medicine to accept responsibility for the care and treatment of the mentally ill at the same level that it accepts responsibility for the care and treatment of patients in other categories of medicine.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Study Committee on Legal Definition of Medicine and Medical Practice

FRANK H. LUTON, M.D., Chairman

The report stated that most of the work of this special committee had been done by the Legislative and Public Policy Committee. The committee had submitted its recommendations to the Legislative Committee and the modification of the Medical Practice Act, including the recommendations of the special study committee, was in the hands of the Legislative Committee.

The report stated that the proposed act now establishes in the definition of medicine the basic right for a physician to diagnose and treat any emotional or mental disorder.

The report concluded by stating that it would be necessary when this proposal comes before the State Legislature, for every physician to understand it, to understand the need of it, and to work for it along with other legislative measures that are sponsored by the Tennessee State Medical Association.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of General Liaison Committee

JAMES J. CALLAWAY, M.D., Chairman

The committee report stated that no spe-

cific business had been referred to the committee during the year and that a meeting had not been necessary. The General Liaison Committee is a standby committee and is available for referral of appropriate business.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Legal Relations and Interprofessional Code Committee

J. ANDREW MAYER, M.D., Chairman

The report stated that the committee on Legal Relations and Interprofessional Code stood ready to act wherever necessary toward implementation of the Interprofessional Code. The committee commended the activity of a number of medicolegal committees throughout the state. It was pointed out that local committees using the state Interprofessional Code as a guide, can effectively solve the numerous medicolegal problems at their source.

The report commended the action of the Committee on Postgraduate Education during the year in providing medicolegal symposia as a part of its program. Such programs fulfilled a need of the medical profession for more widespread education on medicolegal problems and further publicized the available machinery at the state level for assistance to individual members of the profession.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Committee on Sight Conservation

ROLAND H. MYERS, M.D., Chairman

The report stated that no action had been required during the year by the Sight Conservation Committee. It was reported that next year the committee will offer its services to the county medical societies in helping them with their programs by consenting to present a program on sight conservation, if they so desire.

The report was referred to the Reference Committee on Reports of Special Committees.

Report of Special Committee to the American Medical Education Foundation

LOUIS ROSENFELD, M.D., Chairman

At the recommendation of this committee, the House of Delegates adopted a resolution one year ago urging that every physician in Tennessee contribute at least \$25.00 to the American Medical Education Foundation.

The report stated that in 1959, 716 physicians contributed a total of \$40,048.00 in Tennessee. This amount included \$2,201 raised by the Woman's Auxiliaries throughout the state. The report stated that this was almost a 700 percent increase over 1958. Figures were revealed in the report of contributions presented by physicians in specific areas throughout the state. The report stated that for the first time, committees were set up in each county medical society in Tennessee for the purpose of the fund-raising drive.

It was reported that funds received through the American Medical Education Foundation to the University of Tennessee totaled \$6,246; to Meharry Medical College, \$1,217; and to Vanderbilt University School of Medicine, \$47,276. The report pointed out that the three medical schools in Tennessee will receive a total of almost \$70,000 from the American Medical Education Foundation, whereas Tennessee physicians had contributed approximately \$40,000 in the drive.

The committee's report stated that only through such financial support can we help maintain the independence of our medical schools and keep them free from federal intervention which would ensue if the needed financial support came only from the federal government. The report concluded by calling for every physician in the state to send his medical school, through the American Medical Education Foundation, a minimum of \$100 to help advance the cause of independent and unfettered medical education.

The report was referred to the Reference Committee on Reports of Special Committees.

Special Reports

Report of the Woman's Auxiliary to Tennessee State Medical Association

MRS. WM. A. GARROTT, President

In attempting to carry out the theme

given by the President of the Woman's Auxiliary to the American Medical Association of better community health being an individual responsibility, Mrs. Garrott stated that the TSMA Auxiliary had tried to stress better health in all activities.

The report dealt with the State Health Project Contest as one of the means of encouraging health education in high schools. Legislative activities conducted by the Auxiliary during the year were discussed. Numerous meetings were outlined and the efforts and participation in a number of legislative activities were reviewed. Thousands of letters had been written by Auxiliary members over the state urging people to contact congressmen, and scores of resolutions were passed and forwarded to congressmen in Washington.

The report stated that \$5,713.92 had been contributed to the American Medical Education Foundation during the year. This amounted to an average of approximately \$5 per member for the year. The committee on Paramedical Careers Recruitment had been very active. The brochure entitled "Planning a Health Career in Tennessee" was used throughout the state and was received enthusiastically.

A special interest in the care of the aging had been an activity of the Auxiliary. The majority of the Auxiliaries in the state made a survey of the physical and social facilities for the care of the aging available in their respective communities. Copies of the findings of the surveys were sent to congressmen. The report stated that mental health had received much attention from the Auxiliary members. Safety was another subject seriously undertaken.

The report stated that 1,362 members constituted the Woman's Auxiliary to TSMA, and called for counties that did not have Auxiliary Chapters to be permitted to organize and doctors were encouraged to assist their wives in forming new Auxiliaries. The report concluded by Mrs. Garrott thanking the Association for the opportunity of reporting the Auxiliary's 32nd year of work. (At the conclusion of the report the audience applauded and gave Mrs. Garrott a standing ovation.)

The report was referred to the Reference

Committee on Reports of Special Committees.

The Speaker recognized and called upon Mrs. Edwin L. Williams, Chairman of the Committee on Health Project Contest to report to the House.

Committee on Health Project Contest

MRS. EDWIN L. WILLIAMS, Chairman

Mrs. Williams reported upon the activities of the Auxiliary in sponsoring the contest. She announced that the first prize of \$400 went to the Huntingdon High School of Carroll County. Their Future Homemakers of America group presented "The Three Fs—Food, Figure and Fitness." The winning representatives of the Huntingdon High School were guests of the Association at the annual meeting.

The second place award was made to the Biology Class of Algood High School and the Third prize went to Notre Dame High School in Hamilton County. Fourth place winner was Ketron High School of Kingsport. Certificates of merit were presented to each school participating in the contest.

The report was referred to the Reference Committee on Reports of Special Committees.

The Speaker introduced Mrs. Robert L. Akin, Knoxville, President-Elect of the Woman's Auxiliary to the Tennessee State Medical Association, who was asked to stand and be recognized.

Report of Delegates to AMA

WM. C. CHANEY, M.D., Chairman

Dr. Chaney, acting chairman for the AMA delegates, outlined the business transacted at the two meetings of the AMA House of Delegates in 1959.

At the June meeting in Atlantic City, actions included: (1) Report of the American Medical Association Commission on Medical Care Plans; (2) Relations Between Medicine and Osteopathy; (3) Report of the Committee on Preparation for General Practice; (4) The issue of compulsory social security for self-employed physicians.

The report of the AMA delegates outlined in detail discussions before the Reference Committees of the House, particularly as they referred to the issue of free choice of physician.

The report stated that the following policy statement regarding interprofessional relations was adopted.

"A—All voluntary professional associations between doctors of medicine and those who practice a system of healing not based on scientific principles, are unethical.

"B—Enactment of medical practice acts requiring all who practice as physicians and surgeons to meet the same qualifications, take the same examinations, and graduate from schools approved by the same agency, should be encouraged by the constituent associations.

"C—It shall not be considered contrary to the principles of Medical Ethics for doctors of medicine to teach students in an osteopathic college which is in the process of being converted into an approved medical school under the supervision of the American Medical Association Council on Medical Education and Hospitals.

"D—A liaison committee shall be appointed by the Board of Trustees of the American Medical Association to meet with representatives of the American Osteopathic Association, if mutually agreeable, to consider problems of common concern including interprofessional relationships on a national level."

The report reviewed the manner in which two important resolutions were presented to the AMA House of Delegates, one on the subject "Guides for Medical Societies' Policies Pertaining To The National Foundation," and the second entitled "Relationships With The National Foundation." The report dealt in considerable detail with the manner in which these resolutions were studied and acted upon by the AMA.

The report also covered the activities of the American Medical Association's House of Delegates at its interim meeting in Dallas, Texas, in December 1959. The principal business conducted during that session was an enlargement upon the statement to clarify any misinterpretations relative to freedom of choice of physician. At the clinical meeting, the House reaffirmed the "1951 Guides for Conduct of Physicians in Relationships with Institutions." The report concluded by stating that at both meetings in 1959 of the American Medical Association's House of Delegates, the matter

of freedom of choice of physician was re-emphasized time and again. It was stated that this freedom is one of the cornerstones of the practice of medicine and has been called as important as the Ten Commandments for physicians.

The report was referred to the Reference Committee on Reports of Special Committees.

Special Committees not reporting were: (1) Committee on General Practice (2) Committee on Blood Banks.

The Speaker announced that the House was proceeding on schedule and that the next order of business would be the introduction of additional resolutions or amendments. No additional resolutions or amendments were introduced.

The Speaker called for introduction of fraternal delegates and guests. Mr. V. O. Foster, Professional Relations Director of the Southern Medical Association was asked to stand and be recognized. Mr. Charles Johnson, field representative of the American Medical Association was in attendance and was introduced to the House.

There were no supplemental reports to be submitted.

Report of Reference Committee on Nomination of Outstanding Physician of the Year Award

R. B. Wood, M.D., Chairman

The Speaker announced that the next order of business would be the report of the Reference Committee on the Physician of the Year Award and the election.

Dr. R. B. Wood, Chairman, Knoxville, presented the report of the Reference Committee, and submitted, in keeping with requirements, the names of three physicians for the award. They were: Dr. Charles Douglas Walton, Mount Pleasant; Dr. John L. Hankins, Johnson City; and Dr. Wm. C. Dixon, Nashville.

The Speaker called for the customary 3-minute Nominating speeches for each of the candidates. Dr. Ambrose M. Langa, Columbia, spoke in behalf of Dr. Walton. Dr. Carroll H. Long, Johnson City, spoke in behalf of Dr. Hankins and Dr. N. S. Shofner, Nashville, spoke in behalf of Dr. Dixon of Nashville. Each of the speakers extolled the many activities and important services and

leadership exemplified by each of the candidates.

Following the nominating speeches, the speaker asked members of the House to prepare their ballots. Tellers were appointed to count the ballots.

Election of Councilors

The Speaker again announced the names of the physicians composing the Nominating Committee and called upon Dr. James C. Gardner, Chairman, to present the slate of councilors selected by the Nominating Committee.

Dr. Gardner stated that the committee had nominated Councilors for Districts 1, 3, 5, 7, and 9.

For District No. 1, Dr. J. O. Hale of Johnson City was nominated. For the Third Councilor District, Dr. Donald Bradley of Sparta was nominated. In the Fifth Councilor District, Dr. Ben H. Marshall of Fayetteville was nominated for re-election. For District Seven, Dr. Wm. K. Owen, Pulaski, was nominated. For District Nine, Dr. R. David Taylor of Dyersburg was nominated.

Following the nomination of each Councilor, the House voted and the nominees as outlined were elected Councilors of the respective Districts named. In each instance, the Speaker called for additional nominations from the floor. There were none.

Introduction of Additional Amendments or Resolutions

The Speaker called for additional amendments and resolutions and there being none, he asked if there was any other old business to be presented. There was none and the Speaker called for new business.

Dr. John D. Hughes, Chairman of the Board of Trustees' Research and Long Range Planning Committee presented a plan from the Board of Trustees. He pointed out that the committee had searched for a manner in which business could be transacted in a more coordinated manner and at the same time streamline the business methods of the House of Delegates. He pointed out that the committee had done a lot of research to determine a better way to spread the work-load of the Association.

It was stated that the Research and Planning Committee wished to present the de-

tails of a re-organization plan, copies of which were distributed to the House together with illustrative charts. The TSMA Executive Director was asked to present the plan to the House of Delegates for information. Mr. Ballentine presented the following report from the Research and Planning Committee of the Board of Trustees:

"The Board of Trustees has authorized me to present to the House for its information, the thinking of the Board's Research and Planning Committee, and I am presenting this information as the Board's representative. **Please keep in mind, that these proposals are purely suggestive.** During the next year, you may wish to present your views to the President or the Board of Trustees concerning the following plan.

For the past year, the Research and Planning Committee of the Board of Trustees has given thought and much study to the realignment of some of the organizational activities of the Tennessee State Medical Association, in an effort to streamline some operations and to better coordinate the management and reporting of the activities of TSMA.

The Board of Trustees recommended at its January 10, 1960 meeting, that the House of Delegates be furnished with the general ideas of the Planning and Research Committee and that such be furnished for information only. No action is required now by the House on this matter.

You have before you an organizational chart that will give you a picture of the rearrangement which would be effected if it is found to be the most feasible plan to follow.

You will note in the chart that the TSMA membership is the overall body of the Association and in the final analysis, the House of Delegates is answerable to the membership.

The Council is directly responsible to the House of Delegates and its activities pertain to ethical matters. The Council is one of the most important units of the Association, since it deals with ethics. No doubt members of the Council have their ideas of how to make the work of the Council more effective. It is hoped that in the future, if such a proposal as outlined here becomes effective, that the Councilor Districts would

perhaps be redefined to make for a more contiguous group of county societies in a District where they would be better geographically arranged than our present ten Councilor Districts. At present, the Councilor Districts present a geographical problem and anyone who looks at the present arrangement will likely agree that some further study on the respective districts is in order.

You will note on the chart that the Board of Trustees is the overall administrative and policy-making body that functions for the Association between sessions of the House of Delegates. The Executive Committee of the Board answers to the Board. Likewise, the staff at TSMA headquarters answers to the Board of Trustees, and at the same time, serves the many projects and committee activities, performing services to the membership and numerous other business, administrative, legislative and public service activities of the Association.

Up to this point, the organizational procedure generally follows what we have been doing for a number of years. Beginning at this point, however, is where changes would occur in TSMA's over-all procedure if this plan is adopted. The Research and Planning Committee of the Board recommends that 5 Divisions be established as set forth on the chart. They are:

1. Division of Scientific Advancement
2. Division of Legislative Affairs
3. Division of Public Service
4. Division of Socio-Economics, Insurance and Medical Service
5. Division of Governmental Medical Services

It is suggested that each Division be comprised of a Chairman and at least two other members—possibly 5 members should compose the membership of each Division. It might be considered that at least one member of the Board of Trustees be included for membership on each of the Divisions.

Further it is suggested that all committee chairmen falling under one of the Divisions shall be ex-officio members of that Division. This would make for better over-all planning. If the Division wished to meet and discuss procedures and programs, it could do so with or without the ex-officio members who would be the various committee

chairmen under each Division. Bear in mind that all of these ideas are purely suggestions, for your information and further study by officers, delegates, or county medical societies.

One disadvantage to this plan is that committee activities, working through the Divisions, would remove the committee activities one step away from the House and Board of Trustees, which are the policy-making bodies.

It would be advantageous, however, in that it would greatly streamline TSMA's activities and particularly the work of the House of Delegates. For example, instead of some 35 or 40 committees making reports to this House as is the present policy all committee chairmen would refer their reports to the Division Chairman and only 5 reports would be made to the House.

Each Division would submit a comprehensive report of the activities of all of its committees and other than the special reports and reports of officers, all the work of the committees would be correlated into not more than five Divisional reports to the House of Delegates for approval or disapproval. The Division could recommend, if preferred, that various committees of the Division render special reports, if such is found to be to the best interest of the Association.

Another feature would be that the Divisions could better control activities and work of several committees where they over-lap. This has been found to exist in some committee work and under the plan for the Divisions as set forth on the proposed chart, any over-lap in work of committees could be eliminated.

The arrangement set forth on the chart is altogether tentative and subject to any changes desired. These cover the projects and work of all TSMA committees at the present time and some of the special activities in administration and business of the Association. There are numerous policy decisions and administrative work that is handled by the Board of Trustees, the House of Delegates, and the Council, that require considerable direction, yet these are responsibilities of the official bodies above named and would not necessarily come within the

purview of any of the Divisions listed on the charts.

In summary, such a re-organization would mainly serve two purposes. First, it would spread some of the responsibilities and the projects of work of the Association, and second, it would streamline the reporting and work of the House of Delegates.

Such a re-organization would require practically re-writing the Constitution and By-Laws. **This project should not be undertaken hurriedly.** Much thought and study should be given it. The proper organization, the definition of the various bodies and TSMA's activities, should be carefully and thoughtfully spelled out."

Refer to May Journal for illustrated chart of organization.

Following the report, the Speaker announced that this recommendation in essence was being referred to the entire House of Delegates for study.

Announcements

It was announced that the Nominating Committee would meet on Monday, April 11th. The Resolution Committee announced that it would meet at 8:30 p.m. on Sunday evening, April 10th and again at 9:00 a.m. on Monday, April 11th. The location and time of all Reference Committee meetings were announced.

Election of Physician of Year

The result of the balloting for the Outstanding Physician of the Year Award was announced and Dr. Wm. C. Dixon of Nashville, was named the Outstanding Physician of the Year in Tennessee for 1960.

There being no further business to be presented, the first session of the House of Delegates recessed at 5:40 p.m., until 9:00 a.m. Tuesday, April 12, 1960.

TUESDAY MORNING SESSION

April 12, 1960

The House of Delegates re-convened at 9:00 a.m. in the Maxwell House, Nashville, with Dr. Joseph W. Johnson, Jr., Speaker of the House, presiding.

Dr. George L. Smith, Winchester, Chairman of the Credentials Committee reported that registration showed a quorum was

present and the delegates' credentials in order.

The first order of business was the introduction of additional amendments. There were none.

Introduction of Additional Resolutions

(Complete resolutions as presented to the House of Delegates begin on Page 254.)

RESOLUTION NO. 16:

Dr. R. H. Hutcheson, Nashville, introduced Resolution No. 16 which dealt with the number of agencies annually soliciting donations from the public. The Resolution pointed out the useful and valuable services of some of these agencies, but stated that some agencies take advantage of the public in soliciting funds and members of the medical association were frequently called upon to work in cooperation with such fund-raising drives. The resolution requested that the Legislative Committee of the Tennessee State Medical Association, working with the Commissioner of Public Health and members of the Public Health Council, investigate with the assistance of the office of the Attorney General, the legal aspects of a bill that if passed by the General Assembly, would require any agency soliciting tax-free public donations be required to submit to the proper state department of government a declaration of policy of their agency, setting forth the manner in which these funds will be used, prior to the solicitation of such funds. Also such a bill would require agencies soliciting funds to file with the proper state department a statement at the end of each fiscal year, showing the purpose for which collected monies had been used.

The Resolution was referred to the Reference Committee on Resolutions.

Introduction of Distinguished Guests

The Speaker introduced Mrs. Frank Gastineau, President of the Woman's Auxiliary of the American Medical Association. Mrs. Gastineau addressed the House and complimented the Auxiliary of the Tennessee State Medical Association for its many activities. Her remarks concluded by requesting doctors to assist their wives in organizing auxiliaries in any county where an auxiliary did not exist.

The Speaker announced that no additional requests for issuance or suspension of county society charters had been made and the House moved to the next order of business.

The Speaker called for the next order of business which was the report of the Nominating Committee on Election of Officers.

Report of Nominating Committee on Election of Officers

JAS. C. GARDNER, M.D., Nashville, Chairman

The Chairman of the Nominating Committee submitted the following report.

The Nominating Committee placed the names of Dr. W. O. Vaughan of Nashville; Dr. C. D. Walton of Mount Pleasant; and Dr. Kenneth L. Haile of Cookeville for the office of President-Elect.

The Speaker called for nominations from the floor and there being none, he asked members of the House to prepare their ballots.

The Speaker appointed Dr. C. D. Hawkes, Memphis; Dr. Carl Hartung, Chattanooga; and Dr. D. W. Smith, Nashville, to gather the ballots and act as tellers, making the official count.

Following the balloting, the Speaker announced that Dr. W. O. Vaughan, Nashville, had been named President-Elect of the Tennessee State Medical Association, to assume the presidency in 1961. The Speaker appointed Dr. J. Paul Baird, Dyersburg; Dr. Chas. C. Trabue, IV, Nashville; and Dr. Ralph O. Rychener, Memphis, as a committee to escort Dr. Vaughan and introduce him to the scientific meeting in session.

The Speaker requested the Chairman of the Nominating Committee to proceed with other nominations.

The Nominating Committee placed the name of Dr. Joseph W. Johnson, Jr., Chattanooga, for the office of Speaker of the House. (The Vice-Speaker, Dr. J. Malcolm Aste, assumed the chair.) There being no further nominations from the floor, Dr. Johnson was unanimously elected Speaker of the House of Delegates. (Speaker Johnson resumed the chair.)

The Nominating Committee presented the name of Dr. J. Malcolm Aste, Memphis, for the office of Vice Speaker of the House. There being no further nominations from

the floor, Dr. Aste was elected unanimously for the office of Vice-Speaker of the House of Delegates.

The Nominating Committee presented the name of Dr. R. H. Kampmeier, Nashville, for the office of Secretary-Editor. There being no further nominations from the floor, Dr. Kampmeier was elected by acclamation as Secretary-Editor.

The Nominating Committee placed the name of Dr. John H. Burkhart, Knoxville, as Trustee from East Tennessee for a three-year term. There being no further nominations from the floor, Dr. Burkhart was unanimously elected to the Board of Trustees for a three-year term.

The Nominating Committee placed the name of Dr. Carl C. Gardner, Jr., Columbia, as Trustee from Middle Tennessee for a three-year term. There being no nominations from the floor, Dr. Gardner was unanimously elected to the Board of Trustees for a three-year term.

The Nominating Committee placed the names of Dr. Bland Cannon, Memphis, and Dr. G. H. Berryhill, Jackson, as Trustees from West Tennessee for three-year terms. There being no other nominations from the floor, Dr. Cannon and Dr. Berryhill were unanimously elected to the Board of Trustees to serve terms of three years each.

The Nominating Committee placed the name of Dr. J. Kelley Avery, Union City, for the office of Vice President from West Tennessee. There being no nominations from the floor, Dr. Avery was elected by acclamation to serve as Vice President from West Tennessee for 1960. The Nominating Committee presented the name of Dr. C. B. Roberts, Sparta, as Vice President from Middle Tennessee. There being no further nominations from the floor, Dr. Roberts was unanimously elected to serve as Vice President from Middle Tennessee for 1960. The Nominating Committee presented the name of Dr. Wm. I. Proffitt, Cleveland, for the office of Vice President from East Tennessee. There being no further nominations, Dr. Proffitt was declared elected by acclamation to serve as Vice President from East Tennessee for 1960.

The Nominating Committee presented the name of Dr. Chas. C. Smeltzer, Knoxville, as Delegate to the American Medical Asso-

ciation from East Tennessee for a two-year term beginning January 1, 1961. There being no further nominations from the floor, Dr. Smeltzer was elected by acclamation to serve a two-year term as delegate to the AMA from East Tennessee.

The Nominating Committee placed the name of Dr. Wm. J. Sheridan, Jr. of Chattanooga, as alternate delegate to the American Medical Association from East Tennessee. There being no further nominations from the floor, Dr. Sheridan was elected by acclamation as alternate delegate from East Tennessee.

The terms of office for the delegates and alternate delegates elected begin on January 1, 1961 and expire December 31, 1962.

The Nominating Committee presented the names of the following nine physicians for membership on the Public Health Council, three from East Tennessee, three from West Tennessee and three from Middle Tennessee—One from each Division of the State will be subsequently appointed by the Governor. The names presented were:

Dr. Robert M. Finks, Nashville
Dr. Kenneth L. Haile, Cookeville
Dr. John Derryberry, Shelbyville
Dr. R. C. Kimbrough, Madisonville
Dr. Jack Chesney, Knoxville
Dr. Carroll H. Long, Johnson City
Dr. Merlin L. Trumbull, Memphis
Dr. J. Kelley Avery, Union City
Dr. Wm. A. Acree, Ridgley

There being no other nominations from the floor, the nominees were unanimously selected by the House for presentation to the Governor.

The Nominating Committee submitted the names of three physicians from East Tennessee for the Board of Trustees of State Tuberculosis Hospitals. One will be subsequently appointed by the Governor. The names of

Dr. R. W. Epperson, Athens
Dr. Foster Hampton, Chattanooga
Dr. Leopold Shumacker, Chattanooga

were presented. There being no other nominations, the three nominees were unanimously elected.

The Speaker announced that the election of Dr. Vaughan created a vacancy on the Board of Trustees and he requested that the Nominating Committee make a recom-

mendation for a Trustee from Middle Tennessee to complete the un-expired term of Dr. Vaughan.

The Chairman of the Nominating Committee placed the name of Dr. Rollin A. Daniel, Jr. of Nashville as Trustee from Middle Tennessee to fill the unexpired term. There being no other nominations, Dr. Daniel was elected as a member of the Board of Trustees for one year to complete the unexpired term of Dr. Vaughan.

This completed the report of the Nominating Committee.

The Speaker announced that the next order of business was the Report of the Reference Committee on Amendments to the Constitution and By-Laws.

Report of Reference Committee on Amendments to Constitution and By-Laws

CHAS. C. SMELTZER, M.D., Chairman

(Complete Amendments as presented to House begin on Page 225.)

Dr. Smeltzer stated that the Reference Committee had received no proposed amendments to the Constitution. It was stated that two proposed Amendments to the By-Laws were to be acted upon, as well as a progress report of the Board of Trustees' Research and Planning Committee.

Amendment No. 1:

Dr. Smeltzer stated that the Amendment consisted of complete revision of Chapter IX, deleting Sections 1 and 2, and provides five new Sections. This Chapter dealt with assessments and expenditures. The Reference Committee moved that the Amendment be adopted, the motion was severally seconded, put to a vote and **Amendment No. 1 to the By-Laws was unanimously adopted.**

Amendment No. 2:

Dr. Smeltzer stated that Amendment No. 2 proposed that Chapter V of the By-Laws, dealing with the election of officers, be amended by deleting Section 2 in its entirety and substituting an entirely new Section. It was pointed out that the Reference Committee heard much testimony mostly favoring the Amendment. It was also pointed out that the Amendment would expedite the proceedings of the House and make it possible for more members of TSMA to make their views and desires

known to the members of the Nominating Committee.

The Reference Committee Chairman stated that while the proposed Amendment was not a perfect solution, it was an improvement over the present system, and moved the adoption of the Amendment with the following change: "That the portion of the sentence beginning in Line 1, reading, '... at least sixty days prior to the annual session,' be changed to the words '... prior to March 1.'" The motion was seconded.

Dr. Carroll H. Long discussed the Amendment pointing out that a change so drastic as specified in the Amendment should not be made with so little study and suggested that the matter be studied through the forth-coming year and acted upon at a later date.

There was considerable discussion of allowing the Board of Trustees to appoint the Nominating Committee in advance of the annual session. Dr. Dana W. Nance, Oak Ridge, moved that the Reference Committee's Amendment to the Amendment be tabled. The motion to table was severally seconded, **put to a vote and unanimously carried.**

The motion was made and seconded to refer the Amendment to the Board of Trustees for further study. The motion was discussed by Dr. Julian K. Welch, Brownsville; Dr. Duane M. Carr, Memphis; Dr. Wm. A. Garrott, Cleveland; and Dr. J. Paul Baird, Dyersburg. The Speaker stated that the question before the House was whether or not Amendment No. 2 should be referred to the Board of Trustees for further study and recommendation to the House of Delegates, which is the only body that has the power to act on Amendments to the Constitution and By-Laws. Following clarification of the question, the motion was put to a vote and carried and **Amendment No. 2 was referred to the Board of Trustees** for study and recommendation to the House of Delegates. (The vote showed all members of the House voting for the above action, with one "NO" vote recorded.)

Amendment No. 4 lying over from 1959 session:

The Reference Committee reported that it had considered Amendment No. 4, lying

over from the 1959 annual session, dealing with the work of the Council, Chapter VII, Sections 2 and 3, and the proposed Amendment to the Amendment submitted by Dr. William A. Garrott. The Chairman stated that Dr. Garrott's proposed Amendment was designed to assure the accused member or component society a fair hearing. The Chairman stated that Dr. Carroll Long of the Council had pointed out certain legal implications dependent on wording, and that Section 3 of the original Amendment should be altered by inserting the following before the semicolon on the third line from the bottom of the page:

"; at which the accused member or component society, with or without counsel, shall be given an opportunity for a full and equitable hearing."

The Reference Committee moved the adoption of Amendment No. 4 with alteration. The motion was seconded, put to a vote and **Amendment No. 4 was adopted.**

Dr. Smeltzer stated that the Reference Committee considered the progress report of the Board of Trustees' Research and Planning Committee. This report was received by the Committee as information and required no action. The Reference Committee commended the Board for its efforts and recommended that the report be studied carefully by each member of the House of Delegates. Continued study and development of such a plan of reorganization was urged. The Reference Committee Chairman moved the adoption of this recommendation, the motion was duly seconded, put to a vote and carried, **that the Report of the Board of Trustees be carefully studied by each member of the House of Delegates.**

The Chairman moved that the Report of the Reference Committee on Amendments be adopted as a whole. The motion was duly seconded, put to a vote and **the report of the Reference Committee on Amendments was adopted as amended as a whole.**

The Speaker called for the report of the Reference Committee on Resolutions, requesting the Chairman, Dr. Carl A. Hartung, to make his report.

Report of Reference Committee on Resolutions

CARL A. HARTUNG, M.D., Chairman

No. 1

Resolution Opposing Federal Medical Care of Veterans with Non-Service Connected Disabilities

By: G. BAKER HUBBARD, M.D.

WHEREAS, the present policy of the Veterans Administration is to furnish medical care to veterans other than those suffering from service connected disabilities. Now therefore be it

RESOLVED, That the Tennessee State Medical Association go on record as opposing any Federal medical care of Veterans that is not a service connected disability.

The Reference Committee suggested that in the second line following the word "veterans" that the words "in addition to" be substituted for the words "other than." The Reference Committee moved the adoption of this Resolution with this change. The motion was severally seconded, put to a vote and **Resolution No. 1 as amended by the Reference Committee was adopted.**

No. 2

Resolution on Increasing TSMA Annual Dues

By: JOHN D. HUGHES, M.D.

WHEREAS, the many activities of the Tennessee State Medical Association are requiring increasing expenditures in order that the programs and business of the Association may be conducted effectively, and

WHEREAS, increasing costs of publications, the Journal, the cost of the Annual Meeting, higher postal rates, additional costs of paper, supplies, travel, personnel, attorney fees, and day to day items are requiring additional funds to operate the Association, and

WHEREAS, the impact of inflation is being felt through the increasing cost of operations, and

WHEREAS, recent rulings of the Internal Revenue Service have held that physicians' travel expenses are not now tax deductible where a physician travels for his medical society, and

WHEREAS, the TSMA legislative program on the state and national level is requiring considerably more funds necessary to oppose the efforts of those who seek fur-

ther federal encroachment upon medical practice, and

WHEREAS, general operating expenses and services rendered by the Association continue to increase from 5% to 7% annually, and

WHEREAS, a study has been carefully made by the Board of Trustees on the entire matter of financing the Association, and the Board has adopted a recommendation in this regard. Now therefore be it

RESOLVED, that this House of Delegates approves a dues increase in the amount of \$15.00 per capita on the active members of the Tennessee State Medical Association, and be it further

RESOLVED, that the effective date of the dues increase be January 1, 1961, in order that it will coincide with the beginning of the fiscal year of the Association and the respective component medical societies, and be it further

RESOLVED, that this House of Delegates act upon this matter at the 1960 annual session, the best interest of the Tennessee State Medical Association requiring it.

The Reference Committee moved the adoption of this Resolution, the motion was severally seconded, put to a vote, and **Resolution No. 2 was adopted.**

Prior to voting on Resolution No. 2, Dr. John D. Hughes presented information for the benefit of the House as to the reasons for the Resolution and how the added funds were to be utilized.

No. 3

Resolution on Corporate Practice

By: H. T. KIRBY-SMITH, M.D.

WHEREAS, according to Tennessee Code, Section 63-608, as ruled by the Supreme Court of the State of Tennessee, the Corporate Practice of Medicine is illegal, and

WHEREAS, the House of Delegates of the American Medical Association in December, 1951, and re-affirmed in December, 1959, has taken a stand against the Corporate Practice of Medicine, and

WHEREAS, the Tennessee State Medical Association has taken no action in regard to the Corporate Practice of Medicine, now therefore be it

RESOLVED, by the House of Delegates

of the Tennessee State Medical Association, that the employment or use of a physician by a corporation or agency which permits the sale of the services of that physician for a fee is contrary to the best interests of Medicine and is in violation of medical ethics and the Statutes of the State of Tennessee.

The Reference Committee recommended that the Resolution be amended as follows: In line 3 of the "Resolved" portion, after the word "corporation," insert the word "institution," and in the next line, after the word "contrary," insert, "both to the public interest and that of medicine," and delete "to the best interest." Add two "Resolves" as follows:

"RESOLVED, that the Tennessee State Medical Association shall investigate and endorse this principle through the individual Councilors of each District, and suggest a way as he deems appropriate.

"RESOLVED, that any contract entered into henceforth between physicians and corporations, institutions or agencies shall conform to this principle. If any unethical or illegal contracts now exist, the parties thereto are to be given a period of two years from the passage of this resolution to negotiate new contracts in conformity with this principle."

The Reference Committee moved the adoption of this Resolution as amended. The motion was seconded, put to a vote and **Resolution No. 3 was adopted as amended.**

No. 4

Resolution on Medicare

By: JAMES A. KIRTLEY, JR., M.D.

WHEREAS, the adequate and proper care of a patient is based upon close patient-physician relationship, and

WHEREAS, a third party, such as the Government, intervenes in the patient-physician relationship, and endangers the continuation of a high quality of medical care, and

WHEREAS, the Committee on Medicare has come to believe that a contract between the Tennessee State Medical Association and the Federal Government constitutes an acknowledgement of the right of the Fed-

eral Government to have a hand in medical care, which principle could well be applied to pending or future legislation, and

WHEREAS, the administration of a contractual arrangement of a program such as Medicare places the State Association in the position of needing to accept directives from the Federal Government, at times without recourse, and

WHEREAS, a tax-supported health program as against voluntary health insurance is contrary to the basic thinking in a system of free enterprise, and

WHEREAS, the lack of a contract between the Federal Government and the State Association does not deprive the dependent or dependents of personnel of the Armed Forces of medical attention nor deprives any physician of caring for such person or persons with direct bargaining between the physician and the Federal Government, be it therefore

RESOLVED, that the Tennessee State Medical Association does not renew its Medicare contract with the Federal Government upon the date of its expiration, December 1, 1960.

It was reported that the Reference Committee had given much deliberation to this matter, but had no recommendation to make to the House.

The Speaker announced that the House would have to act without recommendation on this Resolution.

Dr. Chas. C. Trabue, member of the Reference Committee on Resolutions, spoke concerning the Resolution stating that it was felt by the committee that the resolution was extremely important and would have far-reaching effects not only for our own state affairs but possibly the affairs of medicine as a whole, nation-wide, relating to our federal government. It was stated that the House had been called into special session to authorize that the original contract be made and the Reference Committee felt that it would take too much responsibility if it made an official recommendation to the House because the House had the original responsibility of saying whether to make a contract with Medicare. Dr. Trabue concluded his remarks by stating that it was his feeling that the present Medicare plan was as good a plan as perhaps we could

get although some of the features are not desirable.

The Resolution was further discussed by Dr. Wm. C. Chaney and Dr. C. D. Hawkes. Dr. Hawkes moved that the Resolution be referred to the Medicare Committee with the suggestion that they modify the resolution and in the meantime take the action suggested to try to work it out with Medicare authorities.

Dr. Dana Nance, Oak Ridge, moved that the Resolution be tabled. Since the motion to table took preference, a vote was taken to table Resolution No. 4. The vote was 41 to 17 to table and **Resolution No. 4 was tabled.**

No. 5

Resolution Pertaining to National Foundation

By: A. ROY TYRER, M.D.

Re: *Substitute Resolution* regarding the National Foundation as prepared by the American Medical Association Committee on Relationships Between Medicine and Allied Health Agencies.

WHEREAS, The American Medical Association is aware of the valuable contributions of The National Foundation in the field of Poliomyelitis through Research, Professional Education and certain aspects of the Patient Care Programs in the past; and

WHEREAS, The American Medical Association is ever anxious to extend cooperation and assistance to any agency or group interested in the health of citizens; and

WHEREAS, The Tennessee State Medical Association desires the American Medical Association's assistance in formulating guides for physicians involved in patient aid programs in local Chapters of The National Foundation, and for other similar agencies in the health field which render direct aid to patients; therefore be it

RESOLVED, That the following statement of policies for guidance of State Medical Associations be adopted by the American Medical Association, and that these guides be transmitted to all constituent associations with the recommendation that all component medical societies adopt these principles.

1. That members of the Medical Advisory Committee to the National Foundation at the Chapter level be selected from a slate

of names furnished by the component medical society.

2. That it should be the function of the Medical Advisory Committee to furnish a detailed report to the component society at least once annually concerning the actions of the committee.
3. That the following basic principles should govern the relationships between patients concerned, members of the component medical society and The National Foundation's local chapter:
 - (a) In order for the Committee to discharge its functions as a liaison between The National Foundation chapter and the component medical society, the Chairman of the Committee automatically shall be a member of the Executive Committee of the local chapter of The National Foundation, if such exists in the county.
 - (b) The expenditure of National Foundation local chapter funds for patient care and for professional education should have the approval of the Medical Advisory Committee. Determination of the extent and degree of eligibility for patient care should be made by the Medical Advisory Committee. In economically borderline cases, the Medical Advisory Committee should determine to what extent the local chapter may assist in the payment of para-medical services.
 - (c) The National Foundation should make no payment for professional services, except as outlined in their memo dated August 1959. (See Addendum A.) Fees for professional services rendered to patients will be arranged privately between the patient and doctor. The necessary steps should be taken to clarify this point with Chapter members, the general public and the patients concerned.
 - (d) Each Chapter which extends aid to patients receiving professional medical or surgical service in a specific medical community should conform to the policies of the Medical Advisory Committee of the component medical society in the community in which the treatment is rendered.

- (e) Doctors who agree to serve on such Medical Advisory Committees should be aware of the responsibilities attendant upon such positions and offer constructive leadership in this respect.

Addendum A

Taken from National Foundation Brochure entitled, *The Chapter Medical Advisory Committee*, August 1959

Functions of Medical Advisory Committees

6. Recommend and arrange for qualified medical consultants to review patients where some special problem exists or where there is a difference of opinion between the Chapter Medical Advisory and the attending physician as to the nature of Treatment planned for a patient for which Chapter assistance is requested. (Consultants reviewing patients at the request of the Medical Advisory Committee may be reimbursed by the chapter. This is the only instance in which Chapters may pay medical fees.)

The Reference Committee pointed out that this Resolution had been written for introduction at the House of Delegates of AMA and the Reference Committee recommended two additional "Resolves" at the beginning of the resolution as follows:

"RESOLVED, that the Tennessee State Medical Association endorse and approve the substitute resolution regarding the National Foundation, prepared by the AMA Committee on Relationships Between Medical and Allied Health Agencies; and be it further

"RESOLVED, that the Tennessee State Medical Association delegates to the American Medical Association be instructed to utilize all reasonable measures to accomplish passage of this substitute resolution at the June 1960 American Medical Association meeting."

The Reference Committee moved the adoption of the Amendment to this Resolution. The motion was seconded, put to a vote, **and the Resolution was amended.**

The Reference Committee moved the adoption of Resolution No. 5 as amended. The motion was seconded, put to a vote **and Resolution No. 5 was adopted as amended.**

No. 6

Resolution on Insurance Utilization

By: HARMON L. MONROE, M.D.

WHEREAS, the medical profession, insurance companies and the public are faced with abuses of insurance plans, and

WHEREAS, it is recognized that abuses exist in some instances, and

WHEREAS, the Tennessee State Medical Association, through this House of Delegates in 1959 attempted to do something to guard against abuses by establishing the Consultative Committee on Administration of Prepaid Medical Care Plans, and

WHEREAS, it is necessary that the insurance industry, the medical profession, hospitals, and related medical agencies find ways to eliminate abuses and at the same time hold down costs and to eliminate certain charges that may be considered to be overuse or unnecessary charges, now therefore be it

RESOLVED, that the House of Delegates of the Tennessee State Medical Association recommend to the county medical societies in Tennessee to adopt their own resolutions requesting the staff of each hospital within the county society's area, to set up a standing "staff" committee to be known as the Insurance Utilization Committee, and be it further

RESOLVED, that the Insurance Utilization Committee be charged with the responsibility of checking on the over-stay of patients covered by insurance, as well as unnecessary charges being made to patients covered by health insurance, and be it further

RESOLVED, that this Committee function in a similar manner to existing committees in hospitals, such as the Records Committee, Pathology Committee, and the Tissue Committee, and be it further

RESOLVED, that upon adoption of this resolution that the appropriate officers of all county medical societies be advised of the contents of this resolution and that they further be urged to follow through in organizing insurance utilization committees within the respective hospitals in their area.

The Reference Committee recommended adoption of this Resolution with the suggestion that the Board of Trustees appoint a

State Insurance Utilization Committee to advise and correlate the workings of the various committees established as a result of the resolution. The Reference Committee moved adoption of Resolution No. 6, the motion was seconded, put to a vote and **Resolution No. 6 was adopted.**

No. 7

Resolution on Privileged Communications

By: CHARLES C. TRABUE, IV, M.D.

WHEREAS, the House of Delegates of the Tennessee State Medical Association, at the Annual Meeting in 1959, adopted Resolution No. 13 which directed that the Legislative and Public Policy Committee draft a bill to amend the Code of Tennessee to provide privileged communications for physicians, and

WHEREAS, after careful study and deliberation the Legislative and Public Policy Committee has determined that the courts of Tennessee take a sympathetic attitude with respect to the maintenance of the physician-patient relationship and that few, if any, judges require a physician to testify in court concerning any matter which might violate the confidence of that relationship, and

WHEREAS, there is the strong possibility that the introduction of such a bill by TSMA might place in jeopardy our privilege, as physicians, of submitting depositions in lieu of appearing in court to offer testimony, and

WHEREAS, those "privileged communications" laws which presently appear on the statutes contain punitive clauses, thus affording no privilege but restricting testimony on the part of those they pertain to on pain of fine and imprisonment, now, be it therefore

RESOLVED, that the House of Delegates rescind its action in adopting Resolution No. 13 at the 1959 Annual Meeting.

The Reference Committee proposed one change in the fourth "Whereas." In the next to last line, following the word "to," insert the words "subject to" instead of "on pain of." The Reference Committee pointed out that this was only a modification of the statement, and moved adoption of Resolution No. 7 with the slight amendment. The

motion was severally seconded, put to a vote and **the Resolution as amended was adopted.**

No. 8

Resolution on Medical Practice Act

By: CHARLES C. TRABUE, IV, M.D.

WHEREAS, the House of Delegates of the Tennessee State Medical Association, at the Annual Meeting in 1959, adopted Resolution No. 14, which directed that the Legislative and Public Policy Committee draft a bill to amend the Medical Practice Act to the extent that it would state that physicians, as a matter of law, are permitted to perform those services traditionally rendered by doctors of medicine, without pre-emption, and

WHEREAS, the Legislative and Public Policy Committee has prepared a proposed amendment to the Tennessee Code, Section 63-608 (Medical Practice Act) and has distributed said amendment to the membership of the House of Delegates, now, be it therefore

RESOLVED, that the House of Delegates approve the said amendment for introduction in the 1961 Tennessee General Assembly, and be it further

RESOLVED, that the members of the House of Delegates support an intensive program of education by the Legislative and Public Policy Committee to acquaint the membership of TSMA with the purpose and meaning of such bill to the end that the members of the Association can thoroughly inform the members of the 1961 Tennessee General Assembly of the true purpose of the bill.

1.

An ACT to amend Section 63-608
of

Tennessee Code Annotated

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY TO THE STATE OF TENNESSEE, That Section 63-608 of the Tennessee Code Annotated is hereby amended in the following manner:

- (a) By inserting in the third line after the word "any" and before the word "physical" the words "emotional, mental, or";
- (b) By inserting in the thirteenth line

after the word "chiropodists" a comma and the words "psychologists, psychological examiners"; and

- (c) By adding the following paragraph at the end of said Section:

"It is intended that the full and complete practice of the profession of medicine within this state be permitted as it has been understood by the public, historically and traditionally, and the further intention that nothing in the various statutes of this state granting licenses to certain persons to perform acts similar to certain of the acts traditionally performed by practitioners of medicine shall apply to, pre-empt, or restrict the actions of persons licensed in accordance with the provisions of this chapter."

SECTION 2. BE IT FURTHER ENACTED, That this Act shall take effect from and after its passage, the public welfare requiring it.

2.

(Present Law)

63-608. "PRACTICE OF MEDICINE" DEFINED—Any person shall be regarded as practicing medicine within the meaning of this chapter who shall treat, or profess to treat, operate on, or prescribe for any physical ailment or any physical injury to or deformity of another; provided, that nothing in this section shall be construed to apply to the administration of domestic or family remedies in case of emergency, or to the laws regulating the practice of dentistry; and this chapter shall not apply to surgeons of the United States army, navy, air force, or marine hospital service, or to any registered physician or surgeon of other states when called in consultation by a registered physician of this state, or to midwives, or to veterinary surgeons, or to osteopaths, or chiropractors not giving or using medicine in their practice, or to opticians, optometrists, chiropodists or to Christian Scientists.

3.

Draft

(Section 63-608 of the Tennessee Code Annotated, with proposed amendments)

63-608. "PRACTICE OF MEDICINE" DEFINED—Any person shall be regarded as practicing medicine within the meaning of this chapter who shall treat, or profess to

treat, operate on, or prescribe for any emotional, mental, or physical ailment or any physical injury to or deformity of another; provided, that nothing in this section shall be construed to apply to the administration of domestic or family remedies in case of emergency, or to the laws regulating the practice of dentistry; and this chapter shall not apply to surgeons of the United States army, navy, air force, or marine hospital service, or to any registered physician or surgeon of other states when called in consultation by a registered physician of this state, or to midwives, or to veterinary surgeons, or to osteopaths, or chiropractors not giving or using medicine in their practice, or to opticians, optometrists, chiropodists, psychologists, psychological examiners, or to Christian Scientists.

It is intended that the full and complete practice of the profession of medicine within this state be permitted as it has been understood by the public, historically and traditionally, and the further intention that nothing in the various statutes of this state granting licenses to certain persons to perform acts similar to certain of the acts traditionally performed by practitioners of medicine shall apply to, pre-empt, or restrict the actions of persons licensed in accordance with the provisions of this chapter.

The Reference Committee recommended several changes in the Draft Section of the Code 63-608 as follows: On page 3, line 3, following the word "who," the words "shall diagnose and/or" be inserted, deleting the word "shall"; and further on in the sentence, following the words "or profess to," insert the words "Diagnosis and/or."

The Reference Committee moved the adoption of Resolution No. 8 and the Code Section as amended. The motion was seconded, put to a vote and **Resolution No. 8 with the Amended Draft Section 63-608 was adopted.**

No. 9

Resolution on H.R. 4700 (Forand Bill) and Similar Legislation

By: CHARLES C. TRABUE, IV, M.D.

WHEREAS, the Tennessee State Medical Association recognizes the medical care and needs of the aged are posing an increasing

number of problems which must be met, and

WHEREAS, the medical profession of Tennessee has amply demonstrated its interest in the provision of medical care for the medically indigent, including the aged, by its sponsorship of the Indigent Hospitalization Program, by which doctors agree to treat without fee, persons determined to be medically indigent by local screening committees during periods of hospitalization, and

WHEREAS, the Tennessee State Medical Association is opposed to the expenditure of tax monies which furthers the move toward medical socialism, and

WHEREAS, the Tennessee State Medical Association believes that certain basic points should be met by any legislation which proposes to spend federal funds for medical care, i.e., (1) that the need for proposed expenditures be determined by careful studies, not only by representatives of federal agencies, but by qualified persons representing groups of citizens concerned with the problems of the aged; (2) that the responsibility for the disbursement of federal funds for medical care be delegated to that agency within the respective states best qualified to perform this function, and not necessarily to the state agency responsible for the administration of other welfare programs dependent to any extent upon federal monies; (3) that the appropriation of any such federal funds be made contingent upon such funds being matched by the states, and

WHEREAS, recent experience in Tennessee with the Welfare Hospital Service Program, administered by the Tennessee Department of Public Welfare, has proved that the Welfare Department program has been wasteful because of the hospitalization of patients without regard to **medical** needs and prognosis, and has led to the overburdening of hospital facilities by careless selection of cases, thus depriving others of needed attention, and

WHEREAS, good hospital and surgical insurance for people in this age group is becoming increasingly available, now be it therefore

RESOLVED, that the Tennessee State Medical Association opposes not only H.R. 4700, but any other legislation which pro-

poses to provide medical services through the mechanism of Social Security as an expanded method of governmental encroachment into the field of medical service, and be it further

RESOLVED, that the Tennessee State Medical Association views all such proposed legislation as H.R. 4700 as detrimental to the public interest in that it relegates to the federal government the responsibility for providing that type of care and comfort to individuals which, in many instances, could be and should be provided by the individual's immediate family or by his local community, thus further leading in the direction of the welfare state, and be it further

RESOLVED, that the Tennessee State Medical Association further condemns this type of legislation in that it makes no provision for important factors which vary from area to area and region to region throughout the United States, and is an attempt to impose a uniform system of "benefits" upon our nation's citizens without regard to the ethnic, social, and economic conditions prevailing with the regions in which they live.

The Reference Committee recommended that the Tennessee Medical Association go on record as opposing the Forand Bill and similar type legislation. In the fifth "whereas," the sentence ending in "and," the Reference Committee recommended that the following be added, "it is felt that passage of the Forand Bill would lead to further overburdening of hospital facilities."

The Reference Committee moved the adoption of this Resolution as amended. The motion was seconded, put to a vote and **Resolution No. 9 as amended was adopted.**

No. 10

Resolution on Medical Examiner System

By: DANA W. NANCE, M.D.

WHEREAS, the progress of medicine is best served by accurate information on the cause of death of those who die without medical attendance, and

WHEREAS, the determination of the cause of death is a **medical** problem, and

WHEREAS, existing practice in many counties in the State of Tennessee consists of the certification of the cause of death by

the (lay) county coroner, if the deceased was without medical attendance, and

WHEREAS, the early recognition of lethal industrial hazards is possible only through careful clinical and postmortem studies, and

WHEREAS, early recognition of epidemic disease for the protection of the public at large is greatly facilitated by postmortem studies, and

WHEREAS, the Roane County Medical Society has appointed a committee to serve as a joint committee with representation from the Anderson County Bar Association, to study similar legislation in other states and recommend action on these and related problems, and

WHEREAS, this committee has recommended the sponsorship of legislation to establish a medical examiner system for the State of Tennessee, and prepared a draft of a law, an abstract of which is available. Therefore be it

RESOLVED, that the Roane County Medical Society favors the establishment of a medical examiner system for the State of Tennessee, and be it further

RESOLVED, that this society transmit its proposal for legislation to achieve this goal, and be it further

RESOLVED, that the Roane County Medical Society urges that the House of Delegates of the Tennessee State Medical Association recommend inclusion of this proposal in their legislative program for the 1961 session of the General Assembly of the State of Tennessee.

The Reference Committee suggested that in the last paragraph, in the next to last line, the word "its" be substituted for "their" and "s" added to "recommend" in the last "Resolved." The Reference Committee moved the adoption of Resolution No. 10 with these changes. The motion was seconded, put to a vote, and **Resolution No. 10 was adopted as amended.**

No. 11

Resolution Concerning Prevention of Progeny of Criminally Insane and Mentally Deficient

By: OSCAR F. NOEL, M.D.

WHEREAS, the experience of the State of Tennessee has proven that persons ad-

judged criminally insane and persons mentally deficient due to eugenic factors continue to propagate children despite the fact that they are unable to care for them; and

WHEREAS, the propagation of children by persons adjudged criminally insane and persons mentally deficient due to eugenic factors has resulted in: (1) A high incidence of criminal tendencies and mental deficiency in the children of such persons. (2) The imposition of an additional burden on the State in caring for and controlling children of such persons; and

WHEREAS, some corrective measures are necessary for the purpose of curbing the evils hereinbefore mentioned; and

WHEREAS, it has been suggested that tube resection and/or vasectomy for the purpose of preventing pregnancy in persons in the categories hereinbefore mentioned should be given consideration; now therefore be it

RESOLVED, that the Chairman appoint a special committee to study the feasibility of a law requiring tube resection and/or vasectomy for the purpose of preventing pregnancy in persons adjudged criminally insane, persons mentally deficient due to eugenic factors, and such other groups as may be deemed necessary by the aforesaid Study Committee, and be it further

RESOLVED, that if the special committee finds that such a law is feasible, it prepare a report to be presented to the House of Delegates at a time designated by that body.

The Reference Committee recommended that the Board of Trustees refer this resolution to the appropriate existing committee.

Dr. Noel spoke to the resolution giving statistical data and supporting information.

After lengthy discussion by members of the House, Dr. James N. Thomasson made **a motion to table the recommendation and motion of the Reference Committee. The motion was seconded, put to a vote and carried.** Dr. Thomasson then offered a motion that the Resolution be adopted as written and referred to the Legislative Committee for immediate action.

Dr. Trabue, Chairman of the Legislative Committee, offered an amendment to this motion wherein the Legislative Committee would carry out the instructions of the

House and prepare a draft bill on the subject and then at a called meeting of the House before January 1, 1961, present the proposed bill for approval or rejection. **The Amendment was seconded, put to a vote and adopted.**

Dr. R. B. Wood offered an amendment wherein the Legislative Committee would be empowered to call on appropriate persons for consultation. **The amendment was seconded, put to a vote and carried unanimously.**

The Speaker called for further discussion of the motion as amended. There was further discussion by Dr. Dana Nance, Dr. R. H. Hutcheson and Dr. Joseph J. Baker.

Dr. Trabue asked for clarification of the question before the House. The Speaker stated that the motion as amended before the House was: "That Dr. Noel, who introduced the resolution will furnish informational data to the Legislative Committee, which in turn will be free to ask for consultation of any State Department or any source it deemed appropriate, in drawing up a bill that would be in the interest of solving the particular problem. The proposed bill will then be presented to a called session of the House of Delegates before the 1961 Legislature for approval or rejection."

After clarification, the Speaker called for a vote **and the motion as amended was adopted.**

No. 12

Resolution Extending Prepaid Insurance

Coverage for the Newborn

By: THOMAS S. WEAVER, M.D.

WHEREAS, insurance for hospitalization of infants from birth to fourteen days of age is not generally included in family policies, and

WHEREAS, many medical and surgical procedures, such as erythroblastosis fetalis, prematurity, intestinal obstruction, congenital defects, etc., may exist and threaten life in this age group, and

WHEREAS, the incidence of these conditions is low compared with the number of newborn infants, and

WHEREAS, most families of child-bearing age are in the lower income groups and need insurance protection, and

WHEREAS, most hospitalization insurance policies carry maternity benefits in the regular premium regardless of child bearing age: i.e., the cost of the maternity benefits is mandatory, not optional, in such family contract programs as Blue Cross in Tennessee; now therefore be it

RESOLVED, that the House of Delegates call this matter to the attention of the insurance carriers in Tennessee and request them to consider extending hospitalization benefits to newborn infants requiring hospitalization beyond "normal newborn care" as outlined in the following schedule:

Care of newborn:—No benefits shall be provided the newborn except as follows:

1. Whenever the infant has a diagnostic medical or surgical illness or when the obstetrician or attending physician deems consultation necessary.

2. When the newborn undergoes a surgical procedure.

3. When the newborn weighs five (5) pounds or less at birth.

4. When the newborn has an acute, reportable, infectious, or contagious disease; an acute bacterial or viral disease; or an acute fungus disease of the central nervous system.

5. When, in absence of transfusion, the newborn has a total bilirubin above fifteen (15) milligrams percent.

6. When the newborn has a respiratory rate of more than sixty (60) excursions per minute on three (3) successive hourly recordings.

7. When the newborn has rhythm abnormalities of the heart with acute heart failure, or when the newborn has congenital heart disease with generalized cyanosis, acute heart failure or both.

8. When the newborn has congenital malformation of the gastrointestinal tract with acute, continuous digestive disturbance.

9. When the newborn has an acute, subdural, subarachnoid, or intraventricular hemorrhage.

The Reference Committee suggested a change in the "Resolved" in the fourth line of the following words "required hospitalization," the following is to be added, "... beyond normal newborn care, because of illness, injury, congenital defects or de-

formity, and/or prematurity." The Reference Committee recommended deletion of the remainder of the resolution.

With these changes, the Reference Committee moved the adoption of Resolution No. 12. The motion was seconded, put to a vote and **Resolution No. 12 as amended was adopted.**

No. 13

Resolution on Indigent Aged

By: H. L. MONROE, M.D.

WHEREAS, the Tennessee State Medical Association recognizes that a need exists with respect to financing the health care of the indigent aged, and

WHEREAS, the Tennessee State Medical Association actively opposes any type of federal legislation utilizing the Social Security Tax System to provide health care for any group of our nation's citizens, and

WHEREAS, the experience which the Tennessee State Medical Association has had with the Tennessee Indigent Hospitalization Program has demonstrated it affords a method of providing needed medical and hospital care for medically indigent persons of all ages, now, be it therefore

RESOLVED, that the House of Delegates of the Tennessee State Medical Association express the belief that a national program based on the concept of the Tennessee Indigent Hospitalization Program would provide for the needs of the nation's indigent elderly sick, and, be it further

RESOLVED, that the House of Delegates of the Tennessee State Medical Association go on record as endorsing a national program patterned after the Tennessee Indigent Hospitalization Program as a positive method of providing for financing the health care of the nation's indigent elderly sick, and, be it further

RESOLVED, that the TSMA delegates to the American Medical Association be instructed to introduce a resolution in the House of Delegates of AMA at the June 1960 meeting in Miami Beach, and, be it further

RESOLVED, that said resolution shall contain the following points:

- (1) A summary of the operation of the Tennessee Indigent Hospital Program;

- (2) A resolve to the effect that the American Medical Association approves an increase in grants-in-aid to the states under Part I, Title III, Public Law 880, as a method of financing the health needs of the nation's elderly sick;

- (3) A resolve to the effect that the American Medical Association supports an amendment to the Social Security Law which would permit funds available to the individual states under the provision of Part I, Title III, Public Law 880 to be expended for health needs of the elderly sick upon certification as to medical indigency by local screening committees and irrespective of their eligibility for the provisions of the Old-Age Assistance Plan;

- (4) A resolve that the American Medical Association implement the above stated program and policy.

The Reference Committee recommended that the Resolution not be adopted. The motion was seconded.

Dr. Monroe spoke at length concerning the resolution. He summed up numerous reasons and his belief that conditions require passage of the resolution. Dr. Merlin Trumbull, a member of the Reference Committee, pointed out the reasons for the committee's recommendation. The Resolution was further discussed by Dr. Wm. J. Sheridan, Dr. R. H. Hutcheson, Dr. Carroll Long, Dr. R. H. Kampmeier and Dr. A. J. Ingram. At the conclusion of the discussion, the Speaker asked the House to vote on the motion of the Reference Committee, which was not to adopt the Resolution.

Dr. Ingram stated that it seemed that there were two portions to the resolution which were before the House, one portion which he believed to be completely acceptable to all members of the House and the second portion which was not acceptable in its present wording and form. Dr. Ingram moved to amend the motion wherein Items 1, 2 and 3 of the final "Resolved" would be deleted and the remainder of the Resolution accepted. It was stated that this motion was out of order and the Speaker called for a vote on the original motion, that the Resolution not be adopted. A vote was taken

and the motion of the Reference Committee was defeated.

A motion was made by Dr. Monroe that the Resolution be adopted. The motion was duly seconded. Dr. A. J. Ingram moved that Resolution 13 be amended by deleting Items 2 and 3 of the final "Resolved." The motion was duly seconded. Dr. R. H. Hutcheson offered an amendment to the amendment as follows: "that Item 3, rather than being deleted, be changed to read: 'that the American Medical Association support an amendment to the social security law which would permit funds available to the individual states, under the provision of Part I, Title III, Public Law 880, to be expended for health needs of the elderly sick in each state by that department of state government to be designated by the Governor, in accordance with state law.'"

The motion to amend the amendment was seconded, put to a vote and carried unanimously.

The Speaker stated that it was next in order to discuss the Amendment to the Resolution which deleted Item 2 of the final "Resolved" and included Item 3 as amended, and included Item 4. There being no further discussion, a vote was called, **the motion was put to a vote and carried unanimously.**

Dr. Carroll Long moved that the Resolution as amended be adopted. The motion was seconded, put to a vote **and Resolution No. 13 as amended was adopted.**

No. 14

Resolution Urging the Appointment of a Doctor of Medicine to the Board of Trustees of the University of Tennessee

By: JOHN D. HUGHES, M.D.

WHEREAS, the University of Tennessee does not have on its Board of Trustees a Doctor of Medicine, in spite of having the largest College of Medicine in the United States, and

WHEREAS, it is felt that a Doctor of Medicine would be unusually well qualified to advise regarding matters pertaining to the College of Medicine, and

WHEREAS, it is recognized that a member of the Board of Trustees of the University of Tennessee should be a public spirited

man of integrity and vision, who should place the best interests of the University above that of any of its subdivisions, and

WHEREAS, the medical profession in Tennessee has never been barren of unbiased, dedicated, broad-minded men possessing the virtues and abilities qualifying them for trusteeship. Now therefore be it

RESOLVED, that the House of Delegates of the Tennessee State Medical Association go on record as urging the Governor of the State to appoint a Doctor of Medicine to the next occurring vacancy on the Board of Trustees of the University of Tennessee.

The Reference Committee recommended adoption of this Resolution. The motion was seconded, put to a vote **and Resolution No. 14 was adopted.**

No. 15

Resolution to Observe "M.D. Day" in Place of "Doctors Day"

By: RALPH O. RYCHENER, M.D.

WHEREAS, the title of Doctor has been usurped by every conceivable irregular and quack physician, and is likewise held by qualified men in fields aside from Medicine, and

WHEREAS, the American Medical Association's House of Delegates at its December 1959 Interim Meeting at Dallas resolved that Doctors of Medicine should use the title M.D., rather than Doctor, wherever possible,

THEREFORE BE IT RESOLVED, that the Southern Medical Association be urged to change its designation of "Doctor's Day" to "M.D. Day" or discontinue its sponsorship of this project.

The Reference Committee recommended adoption of this resolution. The motion was seconded, put to a vote **and Resolution No. 15 was adopted.**

No. 16

Resolutions for Audit on Agencies Annually Soliciting Donations from the Public

By: R. H. HUTCHESON, M.D.

WHEREAS, there are in the State of Tennessee a number of agencies annually soliciting donations from the public and

WHEREAS, many of these agencies perform a useful, valuable and at times indis-

pensible service for the people of Tennessee who are unable through the use of their own funds to take care of their emergency needs, and

WHEREAS, other agencies take advantage of the public in the soliciting of funds, spending a large portion of the money so collected in advertising and personal gain of those responsible for collecting the funds, and

WHEREAS, members of this Association are frequently called upon to work in cooperation with these fund-raising agencies, and

WHEREAS, we feel that the Association and the public are entitled to an accurate accounting of the funds so collected; now therefore be it

RESOLVED, that the Legislative Committee of the Tennessee State Medical Association, working with the Commissioner of Public Health and such members of the Public Health Council as may be indicated, investigate with the office of the Attorney General the legal aspects of a bill that, if passed by the General Assembly, would require any agency soliciting tax-free public donations to submit to the proper State Department of Government a declaration of policy of their agency, setting forth the manner in which these funds will be used, prior to the solicitation of the funds; and be it further

RESOLVED, that at the end of each fiscal year of the agency soliciting funds in Tennessee, that agency file with the proper State department a statement under oath, showing the purpose for which money collected in Tennessee for health and related services has been spent; this statement to include but not necessarily be limited to the amount of funds spent for salary or commission of those responsible for organizing the fund drive, the amount of funds spent for full-time salaries, the amount spent for patient service, the amount of funds spent for research and such other items of expenditure as in the judgment of the proper State authorities should be of value to the people of the State of Tennessee; and be it further

RESOLVED, that if, after investigation of such bill, in the opinion of the Legisla-

tive Committee it appears practical, that the legal counsel of the State Medical Association be requested to draft such a bill, and that this bill be sponsored by the Tennessee State Medical Association.

The Reference Committee moved the adoption of this Resolution. The motion was seconded, put to a vote and **Resolution No. 16 was adopted.**

Dr. Carroll Long moved that the Report of the Reference Committee on Resolutions be adopted as a whole as amended. The motion was seconded, put to a vote and the **Report of the Reference Committee on Resolutions was adopted as a whole as amended.**

The Speaker announced that the House would consider the Report of the Reference Committee on Reports of Officers.

Report of the Reference Committee on Reports of Officers

JOHN H. BURKHART, M.D., Chairman

Report of the President

"Your Reference Committee has reviewed the report of the President, Dr. Harmon L. Monroe of Erwin, and wishes to commend him for the outstanding work he has done during the past year. He has given unselfishly of his time, his talents, his experience and his means.

"He has been particularly generous with the time required in traveling some 20,150 miles to attend meetings of seven county medical societies, committee meetings, Board of Trustees meetings, the annual meeting of the Tennessee State Dental Association and the Tennessee State Bar Association, the annual meeting of the American Medical Association in Atlantic City and the clinical meeting of the AMA in Dallas, as well as such important organizational meetings as the Governor's Conference on Problems of the Aged and the organizational meeting of the Council on Aging. It is obvious that if he had done nothing but travel for the Association, he would have been busy.

"It is likewise obvious that he has done much more than that. We note with satisfaction and commendation his efforts in assisting in the planning necessary for meeting the problems of the aged and especially

the elderly ill of our state and nation, and we hope he will continue his efforts in their behalf.

"We heartily endorse his recommendation concerning the establishment of Insurance Utilization Committees on hospital staffs throughout the State, the reimbursement of members of the Association who must travel to carry out the work of the Association as members of its committees, and the necessity for increasing the dues of the Tennessee State Medical Association in an effort to adequately finance the many important activities and the business being conducted by it.

"The Reference Committee knows it expresses the feeling of the entire Tennessee State Medical Association when it states its opinion that this Society has indeed been fortunate to have had as its President a man with the initiative, energy, devotion and zeal of Dr. Monroe."

Dr. Burkhart moved the adoption of the Report of the President. The motion was seconded, put to a vote and **the Report of the President was adopted.**

Report of the Secretary-Editor

"Your Reference Committee has reviewed the report of the Secretary-Editor, Dr. R. H. Kampmeier. We commend him for the continued excellence of the Journal, and especially his attempts to keep the membership informed concerning the various activities of the Association.

"A special vote of approval is extended for his efforts to keep before the members of the Association the vital issues and policies of the Association through the President's Page and the editorial section of the Journal.

"The Reference Committee acknowledges with the Editor the able assistance of Dr. Addison B. Scoville, Jr. and Dr. Albert Weinstein as Assistant Editors."

The Reference Committee moved the adoption of the Report of the Secretary-Editor. The motion was seconded, put to a vote and **Report of the Secretary-Editor was adopted.**

Report of the Chairman of the Board of Trustees and Treasurer

"Your Reference Committee has reviewed

the report of Dr. William O. Vaughan, Chairman of the Board of Trustees and Treasurer. The Reference Committee is quite impressed by the volume of business conducted at the regular quarterly meetings of the Board of Trustees as well as at the frequent sessions of the Executive Committee.

"The summary of the actions taken by the Board of Trustees during the past year is indicative of the varied and myriad problems and situations with which the Board has had to deal, and we feel that only a group imbued with devotion to duty and dedicated interest could have accomplished the reported results. The Reference Committee takes this opportunity to express its appreciation (and in so doing knows that it speaks for the Society) to the Chairman and the entire Board of Trustees for their efforts and achievements.

"After analysis of the Treasurer's report we note with satisfaction that maximum results are being obtained from the monies spent in conducting the Association's business, and we are particularly pleased to note the headquarters office building."

The Reference Committee moved the adoption of the Report of the Board of Trustees and Treasurer. The motion was seconded, put to a vote and **the Report of the Board of Trustees and Treasurer was adopted.**

Report of the Chairman of the Council

"Your Reference Committee has reviewed the report of the Chairman of the Council, Dr. Carroll H. Long, and feels that the report as rendered by Dr. Long is too modest, in that Dr. Long has not adequately stated the very active role which he himself has played in the affairs of this Society.

"Your Reference Committee is aware of the considerable amount of travel which Dr. Long has engaged in, and the many discourses on medical ethics that he has made to various county societies and others.

"The Reference Committee feels that it is a tribute to Dr. Long's leadership that "the ethical hygiene of the Association appears to be good," and wishes to commend him very sincerely for his work."

The Reference Committee moved the

adoption of the report. The motion was seconded, put to a vote and **the Report of the Chairman of the Council was adopted.**

Report of the Executive-Director

"Your Reference Committee has reviewed the report of the Executive Director, Mr. J. E. Ballentine. The Committee wishes to express to him the grateful thanks of the Association for the highly efficient performance of the many and varied duties of his office, and to take this opportunity to express its appreciation also to the members of the administrative staff—Mr. Jack Drake, Public Service Director; Mr. Roland Stetler, staff assistant; Miss Willard Batey, who has served the Association for some thirty years; Mrs. Hans L. Ragsdale; Miss Louise Little, and Miss Betty Taylor, who resigned in October 1959 to become associated with the Tennessee Academy of General Practice.

"Your Reference Committee feels that through the efforts and activities of all these persons, the work of this Association has gone on smoothly and effectively during the past year."

The Reference Committee moved the adoption of the Report of the Executive Director. The motion was seconded, put to a vote and **the Report of the Executive Director was adopted.**

The Chairman of the Reference Committee on Reports of Officers moved the adoption of the report of the committee as a whole. The motion was seconded, put to a vote and **the Report of the Reference Committee on Reports of Officers was adopted as a whole.**

The Speaker announced that the next order of business would be to hear the report of the Reference Committee on Reports of Standing Committees.

Report of Reference Committee on Reports of Standing Committees

A. J. INGRAM, M.D., Chairman

The Reference Committee moved the adoption of the reports from the

- (1) Committee on Scientific Work
- (2) Committee on Hospitals

The motion was seconded, put to a vote, and **the reports of the Committee on Scien-**

tific Work and the Committee on Hospitals were adopted.

The Reference Committee Chairman commended the Legislative and Public Policy Committee. He outlined and commented upon the excellent work of the committee and recommended that a positive program be followed by the committee in the forthcoming year to not merely impede the development of socialized medicine but to restore the entire economy to the principles of liberty and freedom to the end that democracy will prevail and its enemy, the welfare state, will be abandoned. He moved the adoption of the Report of the Legislative and Public Policy Committee. The motion was seconded, put to a vote and **the Report of the Legislative and Public Policy Committee was adopted.**

The Report of the Liaison Committee to the Public Health Council was acceptable to the committee, however it was suggested that future reports of this committee be prepared in such a way that they summarize the activities of the Public Health Council for the current year. The Chairman of the Reference Committee moved the adoption of this suggestion and the Report of the Liaison Committee to the Public Health Council. The motion was seconded, put to a vote and **the Report of the Liaison Committee to the Public Health Council and the recommendation of the Reference Committee was adopted.**

The Reference Committee moved the adoption of the following reports.

- (1) Committee on Insurance
- (2) Memoirs Committee
- (3) Committee on Postgraduate Education
- (4) Committee on Cancer
- (5) Grievance Committee
- (6) Advisory Committee to Department of Public Welfare
- (7) Committee on Prepaid Health Insurance
- (8) Public Service Committee

The motion was seconded, put to a vote and the reports of the above listed committees were **adopted unanimously.**

The Reference Committee noted with concern that no report was submitted by the Rural Health Committee for the second consecutive year. The Committee recom-

mended that the Board of Trustees review the purposes and functions of the Rural Health Committee and encourage activation or else discontinue it. The Reference Committee moved the adoption of this recommendation. The motion was seconded, put to a vote and **the recommendation of the Reference Committee was adopted.**

The Reference Committee recommended the adoption of the report from the Committee on Tennessee Medical Foundation. The motion was seconded, put to a vote and **the report of the Committee on Tennessee Medical Foundation was adopted.**

The Reference Committee moved the adoption of the Report of the Reference Committee on Reports of Standing Committees as a whole. The motion was seconded, put to a vote and **the Report of the Reference Committee on Reports of Standing Committees was adopted as a whole.**

The Speaker called for the report of the Reference Committee on Reports of Special Committees.

Reports of Reference Committee on Reports of Special Committees

E. L. CAUDILL, JR., M.D., Chairman

The Reference Committee recommended that Paragraphs 1, 2, 3, 4, 5, and 7 of the Report of the Consultative Committee on the Administration of Prepaid Medical Care Plans be adopted as read. The Committee also recommended that sentence No. 4 in Paragraph 6 be changed to read: "What degree of misuses of third-party contracts actually exist."

The Reference Committee recommended the discontinuance of the Committee on General Practice since there was no report from this committee.

The Reference Committee recommended the following committee reports for adoption:

- Disaster Planning Committee
- Industrial Health and Workmen's Compensation Committee
- Liaison Committee to UMWA
- Advisory Committee to Woman's Auxiliary
- Committee on Governmental Medical Services
- Mental Health Committee
- Committee on Health Project Contest

- Tennessee Committee to American Medical Education Foundation
- Sight Conservation Committee
- Committee on Legal Relations and Inter-professional Code

The Chairman stated that the Committee on Blood Banks had not rendered a report, but the Reference Committee recommended that the committee continue to serve as a standby committee.

The Reference Committee recommended the report of the Tuberculosis Committee be adopted and that the committee be continued.

The Reference Committee recommended that the report of the Study Committee on Legal Definition of Medicine and Medical Practice be adopted and that the committee be discontinued since its work was finished.

Since the Speaker had recommended to the Reference Committee to act upon the reports of special committees as a whole, the Chairman moved that the Report of the Reference Committee on Reports of Special Committees be adopted with suggested changes. The motion was seconded, put to a vote and **the Report of the Reference Committee on Reports of Special Committees was adopted with suggested changes and recommendations.**

Special Report

The Reference Committee on Reports of Special Committees recommended adoption of the Report of the Woman's Auxiliary and the President of the Auxiliary was particularly commended by the committee.

The Reference Committee recommended adoption of the Report of the AMA Delegates.

The Chairman of the Reference Committee moved the adoption of the Report of the Reference Committee on Reports of Special Committees as a whole.

The motion was seconded, put to a vote and **the Report of the Reference Committee on Reports of Special Committees was adopted as a whole.**

The Speaker called for any supplemental reports of officers. There being none, he called for any supplemental reports from committee chairmen. There were none. The Speaker pointed out the long and arduous work performed by the Reference

Committees and stated that they had done an extraordinary job.

The Speaker called for any other old business—there being none—he called for any new business to be presented. There was none.

The Speaker stated that the 1961 annual meeting would be conducted in Chattanooga. The dates of the meeting will be April 9-12, 1961.

Meeting in 1962

The Speaker pointed out that the place for the 1962 meeting should be determined since it was necessary to make adequate reservations with the available hotels. Since

the meeting would rotate to West Tennessee, Dr. Wm. C. Chaney, Memphis, invited the Association to conduct its 1962 meeting in Memphis.

The Speaker stated that the 1960 session of the House of Delegates had been an interesting and busy one and expressed appreciation to all members of the House for their cooperation.

There being no further business, the House of Delegates of the Tennessee State Medical Association adjourned at 12:00 noon, sine die.

J. E. BALLENTINE

Executive Director

Minutes of the Annual Meeting of the Board of Trustees of the Tennessee State Medical Association— Maxwell House, Nashville, Tennessee April 13, 1960-8:00 A.M.

The Board of Trustees of the Tennessee State Medical Association convened for the regular annual session of the Board at 8 A.M. on April 13, 1960 in Parlor C-1 of the Maxwell House in Nashville, Tennessee.

Members present were:

Dr. W. O. Vaughan, Nashville
Dr. Harmon L. Monroe, Erwin
Dr. R. H. Kampmeier, Nashville
Dr. Ralph O. Rychener, Memphis
Dr. Rollin A. Daniel, Jr., Nashville
Dr. John H. Burkhart, Knoxville
Dr. G. H. Berryhill, Jackson
Dr. Wm. J. Sheridan, Chattanooga
Dr. Joseph W. Johnson, Jr., Chattanooga
Dr. Carl C. Gardner, Jr., Columbia

Members absent were:

Dr. Bland W. Cannon, Memphis

Others present were:

Mr. J. E. Ballentine, TSMA
Mr. Jack Drake, TSMA

I. The meeting was called to order by the chairman, Dr. W. O. Vaughan. He welcomed the newly elected members of the Board, Dr. John H. Burkhart, Dr. Carl C. Gardner, Dr. G. H. Berryhill, Dr. Bland W. Cannon and Dr. Rollin A. Daniel, Jr. The chairman expressed appreciation to the retiring members of the Board, Dr. H. T. Kirby-Smith, Dr. Julian K. Welch, Jr., Dr.

Dan R. Thomas and Dr. John D. Hughes.

The first order of business was organization of the Board for the year 1960 by election of a Chairman and Treasurer as well as a Vice Chairman. A motion was made by Dr. Monroe, seconded by Dr. Daniel that Dr. W. O. Vaughan be named Chairman of the Board and Treasurer. There was some discussion as to Dr. Vaughan's eligibility since he was the President Elect of the association. It was agreed by the Board that there was no conflict with the Constitution and By-laws wherein the President Elect could not serve as Chairman of the Board and Treasurer. It was pointed out that Dr. Rollin A. Daniel was filling out the unexpired term of Dr. Vaughan. It was pointed out that since the Chairman is also the Treasurer, he had to be located in Nashville. Following the discussion, a vote was called for and Dr. Vaughan was elected Chairman of the Board of Trustees and Treasurer for 1960.

Dr. Johnson nominated Dr. Rollin A. Daniel for Vice Chairman of the Board. The motion was seconded, a vote was called and Dr. Daniel was elected Vice Chairman.

II. Members of the Executive Committee to the Board were discussed. It was the opinion that Nashville members should

compose the Executive Committee, with a representative from the eastern and western divisions of the state. Dr. H. L. Monroe was named the representative from East Tennessee and Dr. G. H. Berryhill was nominated as a member of the Executive Committee from West Tennessee. Dr. Monroe and Dr. Berryhill, together with the Nashville members of the Board, namely Dr. W. O. Vaughan, Dr. Rollin A. Daniel, Jr. and Dr. R. H. Kampmeier, were elected to compose the Executive Committee.

III. The minutes of the Board meeting of January 10, 1960 had been mailed to all members of the Board. Upon motion by Dr. Johnson, duly seconded, the minutes as mailed to the members were approved.

IV. OLD BUSINESS:

A. Since the Board of Trustees had taken a mail ballot to determine the payment of the outstanding indebtedness on the headquarters office building, the Board voted officially to confirm the mail ballot. The Board had previously approved the retirement of the outstanding indebtedness on the headquarters building, the amount being \$28,000.19. A final report was given by the Executive Director. Following the report, Dr. Johnson moved that the action be confirmed and approved, and made a part of the official minutes. The motion was duly seconded and adopted.

B. Dr. Joseph W. Johnson, Jr., chairman of the Board of Trustees' Personnel Policies Committee, discussed the proposed insurance plan for TSMA employees. He outlined the various types of contracts that he had been studying, stating that TSMA employees only would be covered who had been in the employ of TSMA for five years or more. Following this presentation, Dr. Johnson asked the Board's wishes on the matter, and Dr. Monroe stated that he believed that this matter was a decision to be made by the Board of Trustees. The final decision and type of plan will be determined by the Board. Plans presented will be mailed to members of the Board at an early date for further study and action.

C. The Executive Director briefed the Board on the work and the composition of the Research and Long-Range Planning Committee, as well as the Committee on Personnel Policies of TSMA. The Board

directed the Chairman to appoint these two committees of the Board.

D. The chairman reported that the Board convened with the previous members on April 11 for the purpose of appointing the standing and special committees of the association for 1960-61. These appointments were made, subject to changes that the Board of Trustees would make at its official meeting on April 13, 1960.

V. NEW BUSINESS:

A. The chairman called for action on the financial audit for the fiscal year 1959 of TSMA's operations. The audit was reviewed by the executive director. It was stated that copies of the audit had been made available to all members of the Board, those retiring and those newly elected. A motion was made by Dr. Monroe, duly seconded, that the financial audit be approved. (The audit is a part of the official minutes of the Board of Trustees.)

B. The first quarter financial statement for 1960 of TSMA's operations was presented to the Board. The statement was explained and questions answered by the executive director. Dr. Johnson moved approval of the financial statement for the first quarter, the motion was seconded and adopted. (A copy of the financial statement is a part of the official minutes.)

C. The chairman presented a letter to the Board from the Tennessee Chiropodist Association, referred by the Chairman of the Prepaid Insurance Committee, Dr. James A. Kirtley, Jr. The letter was referred to the Board because it involved a policy matter dealing with payments to be made under the Tennessee Plan. It was pointed out that TSMA could not speak for the Tennessee Chiropodists Association, and therefore the request for payment to chiropodists under the Tennessee Plan for services rendered to patients should be rejected. Dr. Joseph Johnson moved rejection of the request and stated that a letter, explaining reasons for rejection, should be written to the president of the Tennessee Chiropodists Association over the signature of the chairman of the Prepaid Insurance Committee. The motion was seconded by Dr. Rychener, and adopted.

D. The executive director read a letter from the A. H. Robins Company offering a

"Community Service Award" to a physician for outstanding service. The matter was discussed by the Board, and the policy reiterated wherein the association did not present such awards from pharmaceutical companies. Dr. Rychener recommended that the award be presented to the duly elected "Outstanding Physician of the Year," if desired by the A. H. Robins Company, but not to present such an award at the TSMA Annual Meeting. He recommended that this matter be done individually outside of TSMA official action. Dr. Rychener made a motion that a letter of thanks be written, pointing out that TSMA could not accept the award, but that the recommendation stated above be considered. The motion was seconded and adopted.

E. The executive director presented a letter and announcement from the American Medical Association, requesting official representation from TSMA to the National Congress on Prepaid Health Insurance to be conducted in Chicago, May 13-14, 1960. Dr. Rychener made a motion that the chairman of the Prepaid Insurance Committee appoint three of the most interested members of that committee, including Mr. Clyde York of the Tennessee Farm Bureau Federation, and that they be urged to attend the National Congress on Prepaid Health Insurance, provided a layman is permitted to attend. Dr. Rychener amended his motion to include that expenses for the representatives of TSMA would be paid by the association. The amendment was accepted, the motion as amended was put to vote and adopted.

F. Composition of the physicians to be included on the Committee on Scientific Work was discussed by Dr. Kampmeier. He pointed out that the secretaries from the various specialty groups were included on the committee, and if the specialty societies in preventative medicine and public health, anesthesiology and diabetes wished to have a guest speaker in 1961 on the general scientific program, the secretaries of these societies should be added to the Committee on Scientific Work. The first alternate society, in the event one of the above did not wish to participate, would be the Tennessee Society of Pathologists.

G. The Board considered the House of

Delegates' Reference Committee directive that the Board re-evaluate the purposes and functions of the Cancer Committee and consider its consolidation with the Postgraduate Education Committee. Since the Cancer Committee is a constitutional committee, it could not be discontinued without amending the By-Laws. The Board took no action.

H. The personnel of the Advisory Committee to the Department of Public Welfare was studied by the Board. A recommendation in the Committee's report was made that additional physicians in the specialties of orthopedic surgery, general surgery, and general practice be added to the committee. It was pointed out by Dr. Kampmeier that the reasons for this request were to give greater geographical coverage and to provide a more complete representation of the medical specialties.

A letter was read from Mrs. C. Frank Scott, Commissioner of the Department of Public Welfare, wherein she suggested six additional names from East and West Tennessee be considered for appointment to this committee. The motion was made by Dr. Johnson to add the six additional names suggested by the Commissioner of Public Welfare. Dr. Rychener made a motion that an appropriate letter of appreciation be written to Mrs. Scott, Commissioner of Public Welfare. The motion was seconded and adopted.

I. In keeping with the direction from the House of Delegates, the Board reviewed the purposes of the Rural Health Committee. In the discussion, it was pointed out that some of the work of the Rural Health Committee is performed by other committees of the association. Since this committee is a constitutional committee, the Board recommended that it be continued.

J. In keeping with a request in the report of the Consultative Committee on the Administration of Voluntary Prepaid Medical Care Plans, and following a recommendation of the Reference Committee, the Board approved a grant of \$2,500 for a study to be made in the state on over utilization of services.

K. Following the recommendation of the Reference Committee of the House of Dele-

gates, the Board discontinued the General Practice Committee.

L. The Board considered the report of the Committee on Tuberculosis. It was the opinion of the Board that the committee should not be discontinued, but should continue as a standby committee since liaison would be necessary between the committee and State Tuberculosis Hospitals. A motion was made for continuation of this special committee, the motion was duly seconded and adopted.

M. The House of Delegates recommended that Amendment No. 2 to the By-Laws, presented to the House, be referred to the Board of Trustees for further study, and report at the next regular session of the House. Following consideration on this matter, the Board referred Amendment No. 2 to the Research and Planning Committee of the Board of Trustees. It was also pointed out by Dr. Carl Gardner that the Vice Presidents could be effectively utilized with the Nominating Committee at the initial meeting of the Committee.

N. The Reference Committee on Resolutions of the House of Delegates suggested that the Board of Trustees appoint a "State Insurance Utilization Committee" to advise and correlate the workings of the committees established in Resolution No. 6. It was pointed out that county medical societies should be urged to follow through and organize the committees in their respective areas that are called for in Resolution No. 6, adopted by the House of Delegates.

It was believed by the Board that TSMA already had the Consultative Committee on Voluntary Prepaid Medical Care Plans and that this committee could function as the Insurance Utilization Committee as an advisory body to local committees to be established. The Board pointed out that counties should be encouraged to set up committees similar to the Tissue Committee, but emphasized that this was a voluntary matter. A motion was made that the Consultative Committee on the Administration of Voluntary Prepaid Medical Care Plans be furnished a copy of Resolution No. 6, and instructed to stand by to help any committees established on the county level that request assistance. The motion was seconded and adopted.

O. Dr. J. U. Speer of Pulaski was named to the Legislative Committee to replace Dr. William K. Owen, resigned.

P. The Board studied resolution No. 13, regarding the indigent aged. Since it was required that this resolution be introduced by TSMA's Delegates to the House of Delegates of the AMA, Dr. Rychener moved that Dr. R. H. Hutcheson, Commissioner of Public Health; Dr. Kampmeier, Dr. Monroe, Mr. Ballentine and Mr. Drake work out a proper resolution and mail a copy to all members of the Board of Trustees for approval.

Q. The Board discussed the problem of additional legal counsel during the forthcoming session of the Tennessee General Assembly, which might be needed by the Legislative Committee. Following discussion of this important matter, the Board authorized the chairman of the Legislative Committee to obtain such additional legal counsel if such was found to be needed in 1961. The Board also heard a request for funds for the Legislative Committee, and an amount up to \$8,500 was approved.

R. Resolution No. 11, adopted by the House of Delegates, was discussed by Dr. Kampmeier and Dr. Johnson. This resolution dealt with preventing progeny of criminally insane and mentally deficient. Following discussion, a statement of clarification was adopted by the Board, pointing out that this resolution was an action of the House of Delegates of TSMA, and the resolution was not submitted by the State Department of Public Health or Mental Health. A clarifying statement of policy was presented by Dr. Joseph Johnson. The statement was adopted by the Board. The statement follows:

"The Board of Trustees of the Tennessee State Medical Association in an effort to clarify the action of its House of Delegates proposing a study of eugenic sterilization, points out that action of the House required consultation be sought with competent and knowledgeable people, departments and institutions. The Department of Mental Health, the Department of Public Health, the Department of Institutions, and other groups and individuals have been, and will be, of consultative service but have had no responsibility in initiat-

ing this study and have no responsibility in drafting legislation, if such be drawn, except insofar as their views will be sought for and considered by the Tennessee State Medical Association."

S. The Chairman of the Board was requested to write a letter of appreciation to Mr. Jack Drury, executive secretary of the Nashville Academy of Medicine, for the as-

sistance rendered the TSMA during the annual meeting.

T. In executive session, the Board adjusted the salary of the Public Service Director, effective May 1, 1960.

There being no further business, the Board adjourned at 11:45 A.M.

W. O. VAUGHAN, M.D. J. E. BALLENTINE
Chairman Executive Director

Abstract of Minutes of Council Meetings Tennessee State Medical Association Maxwell House—Nashville—April 10-11, 1960

The Council of the Tennessee State Medical Association met at 9:30 A.M. Sunday, April 10, 1960 in the Maxwell House, Nashville, Tennessee, with the Chairman, Dr. Carroll H. Long of Johnson City, presiding.

Councilors present were:

Dr. Carroll H. Long, First District

Dr. Joseph L. Raulston, Jr., Second District

Dr. Cecil E. Newell, Third District

Dr. Thurman Shipley, Fourth District

Dr. Ben H. Marshall, Fifth District

Dr. Laurence A. Grossman, Sixth District

Dr. Carl C. Gardner, Jr., Seventh District

Dr. Frank A. Moore, Eighth District

Councilors absent were:

Dr. W. E. Anderson, Ninth District

Dr. Duane M. Carr, Tenth District

The first item of business consisted of a motion by Dr. Newell and seconded by Dr. Marshall, that the Council request the House of Delegates to approve a study to be conducted and reported upon in 1961 wherein a revision of the boundaries of the Ten Councilor Districts of the State be reviewed. It was the opinion of the Council that possibly changes in the boundaries of the Councilor Districts would be in order to facilitate greater accessibility for District meetings and in the work of the Councilors in the various Districts.

The Chairman expressed the appreciation of the Council to the TSMA president, Dr. Monroe, for being a guest in attendance for the meeting of the Council.

The motion was made by Dr. Frank Moore, and seconded by Dr. Ben H. Marshall that the Chairman of the Council

write a letter to the Chairman of the Board of Trustees of the TSMA, requesting that the Council be notified of any and all meetings of the American Medical Association, concerning disciplinary matters.

It was also recommended that a revision of the present questionnaire for information of the annual Council report be studied and a recommendation made by the Chairman of the Council in cooperation with Mr. J. E. Ballentine, Executive Director of the TSMA. It was also the recommendation of the retiring Chairman, Dr. Long, that the Council conduct a mid-year meeting to outline the program for the forthcoming year in order to better familiarize and acquaint the new members of the council with their duties and responsibilities.

A motion was made by Dr. Frank Moore, seconded by Dr. Cecil Newell, that the report of the Chairman of the Council for 1959 be unanimously accepted. This motion was adopted.

Dr. Joseph L. Raulston, Jr., made a motion, which was seconded by Dr. Laurence Grossman, that the Council approve Resolution No. 3 concerning Corporate Practice, to be presented to the House of Delegates by the Committee on Hospitals, with the following changes in the wording of the last paragraph:

"Resolved by the House of Delegates of the Tennessee State Medical Association that the employment or use of a physician by a corporation or agency which permits the sale of the services of that physician for a fee is contrary both to the public interest and that of medicine and is in

violation of medical ethics and the Statutes of the State of Tennessee."

Respectfully submitted,
BEN H. MARSHALL, M.D.
Acting Secretary

MINUTES OF THE MEETING OF THE COUNCIL

April 11, 1960

A breakfast meeting of the Council was conducted at 8:00 A.M. on April 11, 1960 in the Noel Hotel. The meeting was called to order and presided over by the retiring chairman, Dr. Carroll H. Long.

The first order of business was the election of a new chairman for the year 1960-61 and a permanent secretary. Dr. Joseph L. Raulston, Jr. from the Second District was unanimously elected Chairman of the Council. Dr. Ben H. Marshall of the Fifth District was unanimously elected as secretary.

Dr. Raulston assumed the chairmanship and welcomed the newly-elected Councilors

who were named by the House of Delegates on April 10th. The newly-elected Councilors are:

Dr. James O. Hale, Johnson City, First District

Dr. Donald Bradley, Sparta, Third District

Dr. Ben H. Marshall, Fayetteville, Fifth District (Re-elected)

Dr. W. K. Owen, Pulaski, Seventh District

Dr. R. David Taylor, Dyersburg, Ninth District

The Chairman of the Council requested that the minutes of the meeting of the previous day (April 10) be read. Dr. Marshall read the minutes after which they were approved and adopted.

There being no further business, the meeting adjourned.

Respectfully submitted,
BEN H. MARSHALL, M.D.
Secretary

President's Page

PREVENTION OF MALPRACTICE CLAIMS



RALPH O. RYCHENER,
M.D.

If you are one of those physicians who had rather face a mad dog than cross-examination on the witness stand, a renowned bar official has news for you: you are taking a long step toward heading off at the start a source of malpractice cases, if your records concerning your patients are in good order. Your records will do much of the talking for you. Good records scare off and cut short most malpractice suits. The intensity of medical practice today and the difference in patient relationships, together with claims consciousness with some patients, makes it difficult to prevent malpractice suits.

Unjust criticism often creates malpractice cases. The physician should understand his legal and moral duty to the patient and see to it that every patient is given the attention and care consistent with the best medical practice. Care should be taken that adequate patient records are maintained to show the treatment administered, and maintain them in such a character that the proper care and interest will be manifested should the records be introduced in court. Caution should be taken that no entry is made on the patient's record which might be regarded as an admission of fault, or any omission on the part of the physician.

The physician should also exercise tact and professional ability in dealing with the patient and his family. Care should be taken that all clinical aids and diagnostic methods are followed, applicable to the situation under consideration.

Some of our county medical societies have established committees to assist members who face malpractice action. Such committees can advise their society members that as soon as they suspect any professional liability action against them, they should immediately notify their liability insurance committee or the carrier of their liability policy. It has been found that in practically every instance, the physician involved is not only willing but anxious to have the advice of such a committee.

It is important that the defending physician, members of his county society advisory committee, the legal counsel for the company carrying the professional liability insurance, and the claims investigator for the company, should meet and outline in detail the entire situation including diagnosis, prognosis, therapy, conversations with the patient and any other matters considered pertinent. Records, files, hospital records, and any other data that might prove helpful, should be carefully studied.

Finally every physician should carefully consider the type of malpractice insurance that he purchases. Here are several important suggestions: (1) Buy your liability and malpractice insurance from an American company. It proves much more reliable over the long period. (2) Know the legal representative of your insuring carrier, and above all, find out what their court record has been. (3) Don't purchase the least expensive insurance plan. The cheapest premium may be the most expensive policy in the long run. (4) If your county society has not already taken steps to organize medico-legal committees to combat nuisance claims, take the necessary steps to set up the proper procedures and help your committee decide which cases should be vigorously defended.

Ralph O. Rychener, M.D.

Special Article

"Now is the time for all good men to come to the aid of their party."

This oft-typed exercise can be paraphrased to establish the theme of the effort in which doctors of medicine must participate to insure the passage of legislation by the Congress to provide an effective and meaningful program to finance the total health care needs of the nation's indigent elderly.

On the "Tennessee Ten" yellow page of this issue of the journal, a brief description is carried of the proposal of the House Ways and Means Committee; a proposal which will have been introduced in the form of the bill by the time this article is read. The same page carries a report of the joint action of the TSMA Board of Trustees and of the Legislative and Public Policy Committee. These two groups wholeheartedly pledged the support of TSMA to the passage of the "Mills Bill," as it will probably be called.

There have been many complaints from some physicians that it was high time medicine ceased being constantly opposed to congressional action in this area and came out in support of some type of federal legislation.

That time has now arrived.

Your state medical association has taken a forthright, positive position of support of a proposal which incorporates the collective thinking of its membership. The program, which would be established by the Mills Bill, would, in effect, allow each state to participate in a plan for financing the total health care package of that state's senior citizens, when the medical indigency of that individual has been determined.

To that extent the program parallels the Tennessee Indigent Hospitalization Program, fostered by the physicians of Tennessee. It is hoped, even thought, that the bill will permit each state to promulgate its own regulations for administering the program, including the method by which medical indigency will be determined.

You, as a member of the TSMA, have received a communication from your state

headquarters in which the bill is explained. Familiarize yourself with the contents of the measure. Then, when you have sold yourself, launch your campaign to sell others, both within and without the profession.

Congressman Forand stated publicly, after the Ways and Means Committee voted to sponsor the bill, that he was looking to the Senate to carry the ball for him; that he expected the Senate to so amend the Mills Bill that it would emerge as a Forand Bill and be adopted by the election-year Congress.

Whether or not Mr. Forand is correct depends, in a very large measure, upon the action which you as an individual physician, and the profession of medicine take in the short time left.

You have proved your effectiveness in communicating your objections to the Forand Bill and similar legislation to your Congressmen and Senators. But you have been forced to defend the negative. Now is your opportunity to take a strong positive position with respect to proposed legislation which is of major importance, not only insofar as it relates to the health and welfare of our nation's citizens, but in the degree to which it seeks to maintain the free enterprise system of the practice of medicine and, ultimately, to shore up the bulwarks against the menace of creeping socialism.

Write both your Senators . . . Mr. Estes Kefauver and Mr. Albert Gore . . . Senate Office Building, Washington, D. C. Urge their support of the Mills Bill . . . and strongly urge them to resist any attempt to amend the bill when it reaches the Senate!

Write your Congressman again. Tell him you support this bill. Urge him to vote for it . . . and to vote against any Forand-type amendments which may be grafted on to the bill in the Senate.

This is your opportunity, and, as a physician, your responsibility.

"Now is the time for all good *physicians* to come to the aid of their *profession*."

Charles C. Trabue, IV, M.D., Chairman
Legislative and Public Policy Committee

DEATHS

Dr. W. S. Joplin, 84, Petersburg, died on April 11th. He had been in the practice of medicine for 60 years.

Dr. A. H. Donelson, 83, Trenton, died May 11th at his home.

Dr. Owen H. Wilson, 90, Nashville, Professor Emeritus of Vanderbilt University died on May 11th at his home.

Dr. J. H. Gammon, 80, Knoxville, died April 17th at Presbyterian Hospital

Dr. Samuel B. Prevo, 51, Nashville, died May 12th at his residence.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Memphis-Shelby County Medical Society

The Society met for its regular session on April 5th in the Institute of Pathology Auditorium. Dr. Duane M. Carr, President, presided. The scientific program was sponsored by the local organization of the Cancer Society. Dr. Edwin Cocke introduced the speaker, Dr. Charles Harrold, Jr. of the Head and Neck Service of Memorial Hospital, New York City. Dr. Harrold spoke on "Principals in Diagnosis and Treatment of Malignancy in the Oral Cavity." The lecture was illustrated by photographs, and followed by a question and answer period.

Roane County Medical Society

The Society met for its monthly meeting in the cafeteria of the Oak Ridge Hospital on May 31st. Dr. John Wolaver, Psychiatrist, Knoxville, and Dr. Norman Rush, Psychologist, discussed "Happy Family Relationship from the Mental Health Viewpoint."

Chattanooga-Hamilton County Medical Society

The Society met for its May 3rd meeting at the Chattanooga Golf and Country Club. The meeting was preceded by a social hour and dinner. The program consisted of an address by Mr. Leo Brown, Communications Director of the American Medical Association, Chicago, who spoke on the subject "Seeing Ourselves As Others See Us."

Mr. Jack Ballentine, Executive Director of the Tennessee State Medical Association,

also addressed the Society on the subject, "The Physician Is the Key to Successful Legislative Activities."

Greene County Medical Society

The Society met at the Elks Club on Tuesday, May 3rd for a dinner meeting. The guest speaker was Dr. Charles O. Parker, Johnson City, who spoke on the subject "Sight Conservation." Following the presentation, the President, Dr. Gibson, gave a full report of the activities and results of actions taken at the annual meeting of the Tennessee State Medical Association.

Knoxville Academy of Medicine

The Society met for its regular monthly meeting in the Academy building on the evening of May 10th. The scientific program consisted of a presentation entitled "Sympatho-Adrenal System Medicine Related to Space Medicine," by Dr. Chesney Goodwall.

Warren County Medical Society

Eye Diseases was the subject discussed by Dr. Fred Rowe, Nashville, at the most recent meeting of the Warren County Medical Society. The address emphasized the preventable nature of chronic glaucoma, common among older people but which can occur in anyone over 40 years of age.

Consolidated Medical Assembly of West Tennessee

The Society met for its regular monthly meeting on May 3rd at the New Southern Hotel in Jackson. The program consisted of a paper delivered by Dr. Charles L. Neeley, Jr. of the University of Tennessee Medical School. His topic was "Hemolytic Anemias." Dr. James Simmons, neurosurgeon of Memphis, presented a "Review of a Large Series of Cases of Carotid Artery Insufficiency." Discussion was led by Dr. E. W. Edwards and Dr. C. L. Holmes.

Washington-Carter-Unicoi County Medical Society

The Tri-County Society met at the Town House in Erwin on May 5th. The guest speaker was Dr. Guy W. Horsley, chief surgeon of St. Elizabeth's Hospital of Richmond, Virginia and assistant professor of surgery at the Medical College of Virginia. His subject was "Cancer of the Breast."

NATIONAL NEWS

The Month in Washington (From the AMA Washington Office)

Politics now overshadows all other factors in the issue of health care for the aged. It appears certain to be a major issue in this year's campaigning for the White House and Congress, regardless of what Congress does in the field before adjourning this summer.

Both the Democrats and the Republicans are supporting costly, sweeping plans which differ on the basic approach. The major Democratic plans call for use of the Social Security System. The Republican proposals would have the Federal government and the states put up hundreds of millions of dollars to help the aged buy health insurance on a voluntary basis.

The medical profession and allied groups oppose these political solutions because, among many other important reasons, they actually would not meet the problems of many aged who need help in financing the cost of illness.

Meanwhile, a key Democrat—Rep. Burr Harrison of Virginia—warned Congress against acting on such legislation in this year of a national election. He predicted that if any such legislation should be approved this year, it “would be certain to be a monstrosity.” Noting that various solutions had been proposed, Harrison said: “The only features which these proposals have in common are that they are all tremendously expensive; they all propose revolutionary change, and they are all complicated, uncertainly-based and little-understood by the prospective beneficiaries.”

Harrison, who is a member of the House Ways and Means Committee which handles such legislation, urged that Congress defer action until next year. He recommended that, in the meantime, the Ways and Means Committee “conduct an exhaustive study of the various proposals.”

In early May, the Eisenhower Administration unveiled a Federal-state, \$1.2 billion-a-year plan to help the aged with limited incomes buy broad medical and hospital insurance coverage. Under the plan, an

aged person—if able financially—would bear part of the cost of both the insurance and of the medical care and hospitalization.

Arthur S. Flemming, Secretary of Health, Education and Welfare, and Vice President Richard M. Nixon stressed that participation by the aged in the Administration program would be on a voluntary basis.

The Administration's plan immediately ran into widespread opposition. Dr. Louis M. Orr, Orlando, Florida, President of the American Medical Association, said it was based “on the false premise that almost all persons over 65 need health care and cannot afford it.”

“This is not a fact,” Dr. Orr said. “The truth is that a majority of our older people are capable of continuing a happy, healthy, and, in many cases, productive life. Of the more than 15 million persons in the nation over 65 years of age, only 15 per cent are on old-age assistance.”

Dr. Orr said neither the Administration's proposal nor the Forand-type Social Security approach is tailored to meet the problems of the undetermined number of older persons who, “although able to finance other costs, find it difficult to withstand the additional burden of the cost of illness.”

Dr. Orr advocated the AMA's positive eight-point program for the health care of the aged as a “sensible, economical” plan that would preserve freedom as well as promote security. If both these objectives are to be realized, Dr. Orr said, health care programs for the aged “must necessarily be limited to support for the needy aged and leave to voluntary, competitive, private enterprise, those activities needed to improve the health care of the rest.”

In brief, the AMA program comprises: 1) improved preventive medical care for the aged; 2) a state-administered program of Federal grants-in-aid to states for liberalization of existing old-age assistance programs so that the near-needy could be given health care without having to meet the present rigid requirements for indigency; 3) better nursing home facilities for the long-term care of aged persons, especially those over age 75; 4) rapid development of health insurance and prepayment policies to provide long-term nursing home care; 5) expansion of home nursing care services; 6)

elimination of compulsory retirement and a basic change in the attitude that a person who reaches 65 has suddenly become non-productive and senescent; 7) health education to instill a "will to live" in older persons and to make them aware of the need for continuing healthful nutrition; and 8) anti-inflationary curbs to maintain the purchasing power of fixed pension and annuity benefits.

A Republican lawmaker, Sen. Barry Goldwater of Arizona, denounced the Administration's plan as "socialized medicine" and a "Dime store new deal." The outspoken conservative predicted its ultimate cost would be "staggering." He said the Administration could have done better by proposing "full deductions for taxes for any amount spent for medical care of anyone" and for full costs of health plans by either an individual or corporation.

In endorsing the Administration's plan, Vice President Nixon charged the Forand-type proposals backed widely by Democrats would "open the door for socialized medicine." He said:

"The Forand Bill and similar plans would set up a great state program which inevitably would head in the direction of herding the ill and elderly into institutions whether they desired this or not. Such a state program would threaten the high standards of American medicine."

Sen. Pat McNamara (D., Mich.), Chairman of the Senate Subcommittee on Problems of the Aged, headed a group of 16 Senate Democrats who sponsored legislation that would provide hospitalization and medical care for virtually all the nation's older persons.

The co-sponsors included three avowed candidates for the Democratic nomination for president—Sens. Hubert H. Humphrey (Minn.), John F. Kennedy (Mass.) and Stuart Symington (Mo.).

Cost of the McNamara legislation was estimated at \$1,578,000,000 a year. This would be financed by a one quarter per cent increase in the Social Security tax and 370 million dollars from general tax money.

New AMA Commission to Study Costs of Medical Care

"We would like to find where medical

care economies may be achieved in the best interests of the patient." That statement was made by Louis M. Orr, M.D., president of AMA, when he recently explained the establishment of the new AMA Commission on the Costs of Medical Care.

The AMA appropriated an initial grant of \$100,000 for the broad Commission assignment to delve into every phase of medicine where costs or spending are involved.

Dr. Orr stressed that "This study-project is being launched because the American public is spending increasing amounts of money for all types of medical care. These expenditures involve the peoples' lives, health and pocketbooks. The Commission will analyze the cost picture from every angle and try to come up with some sound advice and suggestions."

The Commission will study all medical care costs, including doctors' fees, hospital charges, nursing cost, drug expenditures, and health insurance premiums. Dr. Orr said that American medicine is "tackling the cost problem in order to help people better meet their obligations when illness strikes, and to help clarify the confusion that exists relative to such cost."

The American Medical Association, Dr. Orr said, is "well aware that more physician-patient relationships have been strained by a misunderstanding about fees than perhaps any other disagreement. Is such misunderstanding due to lack of frank discussion between doctor and patient, or is there some other reason? A patient has every right to know why he needs treatment or surgery, what it will consist of, and what it will cost—particularly where major services are rendered."

The AMA Commission will consult economists, health insurers, prepayment plans, hospital representatives, a cross section of patients, and others whose knowledge and opinions will be helpful.

MEDICAL NEWS IN TENNESSEE

West Tennessee Medical and Surgical Society

The Society conducted a scientific program in the New Southern Hotel at Jackson

on May 26th. The following papers were presented:

"Recent Trends in Diagnosis and Therapy of Uterine Cancer" by Dr. Ben E. Everett, Memphis; "Diagnosis and Treatment of Cancer of the Colon and Rectum" by Dr. Julian Welch, Brownsville; "The Treatment of Common Fractures Seen in General Practice" by Dr. Fred P. Sage, Memphis; "Cardiac Arrhythmias" by Dr. Dan Copeland, Memphis; "Surgery of Tumors of the Adrenal Glands" by Dr. Bob Miles, Memphis; "The Ten Most Common Dermatoses—Color Slides and Comments" by Dr. Harold Alsbrook, Jackson. The dinner speaker was Dr. L. W. Diggs, Professor of Medicine, and Director of the Department of Medical Laboratories at the University of Tennessee and City of Memphis Hospitals. His subject was "Fibrinogenopenia and Fibrinolysis."

Dr. Thomas K. Ballard, Jackson, was in charge of the program committee.

Medical Examination of Civil Airmen

Since many Tennessee physicians pilot their own aircraft, there may be some interest in the recent announcement of a change in the practice pertaining to the medical examination of civil airmen. Due to the widespread effect of this change, affecting many practicing physicians, those interested may wish to consider contacting the Civil Air Surgeon, Dr. James L. Goddard for further information. If you have an interest in this regard, contact Dr. Goddard at the Federal Aviation Agency, Washington 25, D.C.

Society of Clinical Surgery

More than 40 of the nation's top surgeons gathered in Memphis on April 29th-30th for the 102nd annual meeting of the Society of Clinical Surgery. The scientific program was presented by the staff of the Department of Surgery, University of Tennessee College of Medicine.

The Society is made up of approximately 100 outstanding American surgeons. Visitors attended operative clinics in the surgical section of Baptist Hospital and heard scientific papers. Those attending heard Dr. Frank S. Groner, hospital Administrator comment on the Medical Center expansion program.

Memphis Thoracic Society

The Society met on April 28th at the West Tennessee Tuberculosis Hospital. The speakers were Dr. Richard E. Travis on "Pulmonary Allescheriosis" and Dr. Robert H. Boon on "Tuberculosis with Histoplasmosis."

Vanderbilt University School of Medicine

Dr. Calvin W. Woodruff, professor of pediatrics at Vanderbilt will resign effective June 30th to accept appointment as professor of pediatrics and chairman of the department at the American University at Beirut. The American University of Beirut is the largest American institution outside the United States.

University of Tennessee College of Medicine

A symposium on guanethidine, a new medicinal for treatment of high blood pressure, was sponsored by the University of Tennessee College of Medicine on April 22nd. The clinical effectiveness, use and potency of this new agent were presented by nationally recognized authorities.

* * *

Dr. Leo Bartemeir, past president of the American Psychiatric Association, was the guest faculty lecturer for a program in psychotherapeutic interviewing offered to physicians by the UT College of Medicine in Memphis on May 25-27. The program was planned for the practicing physician interested in broadening his practical knowledge and skill in psychotherapeutic interviewing.

* * *

New techniques in treating fractures and dislocations were presented in a postgraduate program for physicians at the UT College of Medicine, May 18-20. Dr. Harold B. Boyd, head of the Department of Orthopedic Surgery, directed the program.

* * *

A campaign to raise \$250,000 for the expansion of the UT Memorial Research Center was recently launched by a Knoxville Committee. It was pointed out that if more funds and space were available, the Center could get more research contracts with the National Aeronautics and Space Administration as well as other contracts.

Dr. G. Daniel Copeland, Jackson, has joined the staff of the UT College of Medicine as instructor in medicine.

Dr. John W. Davis, Hickory, North Carolina, has been named instructor and assistant director of the Department of General Practice.

* * *

The director of the UT Memorial Research Center, Knoxville, has been awarded a new \$282,130 grant to further his studies of virus-induced tumors. Dr. Stanfield Rogers will direct the study of the mechanism of action of the Shope papilloma virus under the five-year research grant from the Department of Health, Education and Welfare, Public Health Service.

PERSONAL NEWS

Dr. Jesse L. Williams, Jr., Chattanooga, was recently certified as a Diplomate of the American Board of Urology.

Dr. Robert W. Boatwright, Chattanooga, has been certified as a Diplomate of the American Board of Obstetrics and Gynecology.

Dr. Edward L. Tarpley, Nashville, addressed the Pan-American Medical Congress, Mexico City on May 3rd. His subject was "Pericarditis in Rheumatoid Arthritis."

Dr. Coulter Young, Manchester, is the new President of Manchester City School Parent-Teachers Association.

Dr. Cloyce Bradley, Nashville, recently addressed Handicappers, Inc.

Dr. Joseph J. Baker, Nashville, recently addressed the Memphis Civitan Club.

Dr. B. N. Golden, Kingsport, was a recent speaker before the Kingsport practical nurses group.

Dr. N. E. Hyder, Erwin, was a recent speaker before the Unicoi County Cancer Society.

Dr. Walter T. Hughes, Cleveland, has been elected a Fellow of the American Academy of Pediatrics.

Dr. Larry E. Hale, Erwin, is now associated in practice with Dr. R. H. Harvey.

Dr. O. L. Merritt, Dandridge, has been elected county physician for Jefferson County.

Dr. John H. Burkhart, Knoxville, has resigned his position of chief of the general practice staff at University Hospital.

Dr. F. T. Billings, Nashville, has been elected to the Board of Trustees of Meharry Medical College.

Dr. B. H. Woodard, Springhill, was recently honored by the Springhill Civic Club.

Dr. George Harvey, Jackson, has been elected a Fellow of the American College of Physicians.

Dr. Robert J. Barnett, Jackson, has been elected a Fellow in the American Academy of Orthopaedic Surgery.

Dr. R. H. Hutcheson, Franklin, has been named to a national advisory committee on accident prevention.

Dr. Harold A. Schwartz, Chattanooga, has been elected President of the Tennessee Obstetrical and Gynecological Association.

Dr. R. H. Kampmeier, Nashville, recently addressed the Rotary Club at Murfreesboro.

Dr. Wm. O. Murray, announces the opening of his office for the practice of medicine in Yorkville.

Dr. Carroll H. Long, Johnson City, has been named President of the Tennessee Chapter of the American College of Surgeons.

Dr. John L. Sawyers, Nashville, has been named chief of surgery at Nashville General Hospital.

Dr. Beth Lodge, South Pittsburg, has joined the Marion County Health Department staff as medical director.

Dr. John E. Neumann, Paris, has been elected a Fellow of the American College of Physicians.

Dr. Roy W. Laughmiller, Maryville, has been elected a Fellow of the American Academy of Pediatrics.

Dr. N. T. Winston, Jr., Johnson City, recently addressed the Kingsport Child Study Club.

Dr. C. M. Looney has returned to Springfield and is associated with Dr. John E. Wilkison.

Dr. John P. Conway, Memphis, has been named President-Elect of the Memphis Heart Association.

Dr. Cleo Miller, Nashville, has been named head of the Nashville Presbytery in the Campus Christian Life Campaign.

Dr. D. Isbell, Chattanooga, recently discussed "Glaucoma and the Glaucoma Clinic" over a Chattanooga TV station.

Dr. Thomas F. Frist, Nashville, has been elected President of the Middle Tennessee Heart Association for 1961.

Dr. Elliot V. Newman, Nashville, has been installed as the 11th President of the Middle Tennessee Heart Association for 1960.

Dr. David McCallie, Chattanooga, has been elected President of the Chattanooga Area Heart Association. He will assume the office on July 1.

ANNOUNCEMENTS

Tennessee Valley Medical Assembly

The Eighth Annual Meeting of the Tennessee Valley Medical Assembly, sponsored by the Chattanooga-Hamilton County Medical Society invites physicians to attend the sessions at the Read House in Chattanooga on September 26-27, 1960.

Members of the American Academy of General Practice are granted eight and one-half hours of Category I Credit for the two days attendance. Another outstanding scientific program has been arranged. Special entertainment will be made

available for the wives of doctors attending. In addition, there will be a golf tournament and a social hour on September 26th followed by the banquet.

World Medical Association

Dr. G. Turner Howard, Jr., Knoxville, Chairman of the Tennessee Section of the United States Committee of The World Medical Association has been authorized to extend an invitation to members of TSMA to attend the next General Assembly of the World Medical Association, which will be held in West Berlin, Germany, September 15-22, 1960. For further information write to: The World Medical Association, 10 Columbus Circle, New York 19, New York.

Dr. Howard also announced that the following doctors have been appointed as regional representatives in Tennessee. They are: Dr. Edward G. Campbell, Memphis; Dr. B. M. Overholt, Knoxville; Dr. Leonard W. Edwards, Nashville; Dr. Robert F. Thomas, Sevierville; Dr. Rudolph H. Tureotte, Kingsport; Dr. H. L. Monroe, Erwin; and Dr. Moore J. Smith, Chattanooga.

Course in Postgraduate Gastroenterology

The American College of Gastroenterology announces that its Annual Course in Postgraduate Gastroenterology will be given at the Bellevue-Stratford Hotel in Philadelphia, Pa., on 27, 28, 29 October, 1960.

The faculty for the Course will be drawn from the medical schools in and around Philadelphia. The subject matter to be covered in the course, from a medical as well as surgical viewpoint, will be essentially, the advances in diagnosis and treatment of gastrointestinal diseases and a comprehensive discussion of diseases of the mouth, esophagus, stomach, pancreas, spleen, liver and gallbladder, colon and rectum. There will be a clinical session at the Albert Einstein Medical Center and again this year, in addition to individual papers, there will be panel discussions and CPC's of interest.

For further information and enrollment write to the American College of Gastroenterology, 33 West 60th Street, New York 23, New York.

Physicians Recently Licensed in Tennessee

Michaelis, Dorothy L., Memphis

Horton, Glenn E., Memphis
Atkinson, Gerald W., Blackstone, Va.
Alexander, William K., Knoxville
Perry, Harmon H., Port Chester, N. Y.
Murphy, Walter H., Memphis
Shupe, David R. W., Johnstown, Penn.
Reaves, John A., Jr., Dyersburg
Stewart, William D., Gallatin
White, David A., Oak Ridge
Abernathy, James P., Murfreesboro
Bailey, Robert E., Memphis
Bell, Steven H., Memphis
Bennett, Sanford, III, Tucson, Ariz.
Binger, Richard W., Memphis
Brumback, George F., Roanoke, Va.
Campbell, James E., Kingsport
Cash, Charles R., Memphis
Colbert, Robert S., Memphis
Davis, Jimmy B., Memphis
Derryberry, Walter E., Chicago, Ill.
Dillard, Richard L., Springfield
Ginn, William V., Jr., Memphis
Grime, Harvey H., Lebanon
Hedden, James W., Memphis
Henderson, Darrell L., Dallas, Texas
Hornsby, Robert P., Signal Mountain
Jourdan, Paul L., Knoxville
McKenzie, Eugene E., Memphis
Maxwell, Jay W., Kingsport
Meriwether, Betty A., Clarksville
Morrison, Margaret M., Nashville
Neely, Ernest R., Memphis, Ark.
Nowlin, Wade H., Kingsport
Owens, Samuel B., Blytheville, Ark.
Pope, Herbert L., Memphis
Robinson, Philip H., Cincinnati, Ohio
Scholz, Kenneth C., Scottsdale, Ariz.
Shamiyeh, Samir B., Knoxville
Sundt, Thoralf M., Jr., Memphis
Wadley, John K., Memphis
Waters, James H., Jr., Knoxville
Wender, Charles M., Knoxville
Wills, John R., Memphis
Winslow, James E., Jr., Jackson
Wooten, Paul T., Knoxville
Collins, Isabella S., Nashville
Dirmeyer, Phillip H., Memphis
Drake, Arnold M., Memphis
Elrod, Dennis B., Jr., Memphis
Emerson, Charles W., Jr., Jacksonville, Fla.

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COMPOSITION: Each capsule contains 200 mg. dl-methionine, a known amino acid.

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IN SEVERE CASES OR OLDER BABIES PERHAPS TWO

Louis S. Goldstein Clinical Medicine 59:455 (1952) / Koss Archives of Internal Medicine Vol. 100, p. 709.

REID LABORATORIES, INC. ATLANTA 14, GEORGIA



CONSTITUTION AND BY-LAWS TENNESSEE STATE MEDICAL ASSOCIATION

CONSTITUTION

ARTICLE I

Name of the Association

The name and the title of this organization shall be "The Tennessee State Medical Association."

ARTICLE II

Purposes of the Association

The purposes of this Association shall be to federate and to bring into one compact organization, through the component societies, the medical profession of the State, and to unite with similar associations in other states to form the American Medical Association.

The aims of this association shall be:

1. The extension of medical knowledge, the advancement of medical science, the maintenance of medical ethics, and the competence of the art of medical practice.

2. The elevation of the standards of medical education.

3. The enforcement of just laws that have to do with the health and welfare of the people of this State.

4. The promotion of friendly intercourse among physicians, and the guarding and fostering of their material interests.

5. The enlightenment and direction of public opinion in regard to the problems of health and medical care, and the promotion of understanding between the public and the medical profession.

6. To make the medical profession of the State more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III

Component Societies

Component Societies shall consist of those local Medical Societies which hold charters from this Association.

ARTICLE IV

Composition of the Association

SECTION 1. This Association shall consist of Active Members, Associate Members, Veteran Members, Honorary Members, and Student Members.

SEC. 2. The Active Members of this Association shall be active members of the Component Medical Societies who have been certified to the Secretary of this Association and whose dues have been paid for the current year.

SEC. 3. Associate members shall be commissioned officers in active service of the U. S. Armed Forces, Veterans Administration, and Public Health Service, residing in the State, who are elected to membership by a Component Society

and certified to the Secretary of the State Association as Associate Members. Such physicians may be eligible for active membership, if otherwise qualified.

SEC. 4. Veteran Members are those who, because of age or impaired health, have been elected Veteran Members of their Component Societies, and who are so certified to the State Association annually by the Component Societies.

SEC. 5. An Honorary Member is one who is a member of another State Association, or other reputable society, who is pre-eminent in general or special scientific work, whose name, with detailed information concerning his education and professional qualification, is presented in writing by three members of this Association, and who is elected by a two-thirds vote of the House of Delegates.

SEC. 6. A Student Member is any student regularly and duly enrolled in a medical school in Tennessee and who is a candidate for the degree of Doctor of Medicine, and who is certified by his Component Medical Society.

ARTICLE V

House of Delegates

The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the Component Societies; (2) ex-officio the Officers; (3) the five most recent surviving ex-Presidents of the Association, except that all ex-Presidents who were living in April 1956 shall be members for life; (4) the Associations delegates to the American Medical Association, the Commissioner of Public Health, and the Commissioner of Mental Health for the State of Tennessee, provided such Commissioner of Public Health or Mental Health is a member in good standing of the Tennessee State Medical Association.

ARTICLE VI

Sections

The House of Delegates may provide in the By-Laws for a division of the scientific work of the Association into appropriate Sections as the need may arise.

ARTICLE VII

Annual Meetings of the Association

The Association shall hold an Annual Meeting at such time and place as provided in the By-Laws, and the Scientific Meetings shall be open to all registered members and guests.

ARTICLE VIII

Officers

SECTION 1. The officers of the Association shall be a President, President-Elect, a Vice-President for each of the three grand divisions of the State,

a Secretary-Editor, the six elected Trustees, ten Councilors, a Speaker of the House of Delegates, and a vice-speaker of the House of Delegates.

SEC. 2. The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past-President, the President-Elect, the Secretary-Editor of the Journal, and six members elected by the House of Delegates as hereinafter provided.

Six members of the Board of Trustees shall be elected by the House of Delegates, two from each grand division of the State, and no two will be from any one component society.

The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself. The Board of Trustees will organize by the election of a Chairman. The Chairman of the Board of Trustees shall be ex-officio Treasurer of the Association.

SEC. 3. There shall be one Councilor for each Councilor District and such Councilor Districts shall coincide with the Congressional Districts for the State of Tennessee in the year 1948. The Councilors shall be elected for a term of two years, in the following manner: Councilors from odd numbered districts will be elected in even calendar years and Councilors from even numbered districts will be elected in odd calendar years. No Councilor shall serve more than four consecutive years.

The Council shall organize annually by the election of a Chairman and a Secretary.

SEC. 4. The President-Elect, the three Vice-Presidents, the Secretary-Editor and the Speaker of the House of Delegates shall be elected annually for one year, and the Speaker of the House shall hold office for not more than four consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President.

SEC. 5. The President, Secretary, and Speaker of the House of Delegates shall be ex-officio members of the Council.

SEC. 6. Every officer shall hold office until his successor is elected and assumes office.

SEC. 7. All officers of the Association, except the Councilors, shall be elected at the second regular session of the House of Delegates, and they shall assume office when elected.

SEC. 8. No member who has not been a member in good standing for five years next preceding election, or who is not in attendance at the meeting, shall be eligible for election as President-Elect or Vice-President.

ARTICLE IX

The Powers and Duties of the Board of Trustees

SECTION 1. The Board of Trustees shall have entire control of the publication, the policy and the editorial and financial management of the Journal of the Association. It shall be authorized and empowered to make all contracts necessary for the conduct of the Journal.

SEC. 2. The Treasurer of this Association shall

be the custodian of all the funds of the Association.

SEC. 3. The Board of Trustees shall hold semi-annual meetings, one of which shall be held on the last day of the Annual Meeting, and such other meetings as the business of the Association may require, subject to the call of the Chairman. The Board of Trustees shall make expenditures of the funds of the Association dependent upon the availability of such funds as determined by the Board of Trustees and as ordered by the House of Delegates. The Board of Trustees shall render at the Annual Session a full and detailed accounting of all receipts and disbursements.

SEC. 4. In the event of a vacancy by death or resignation of any member of the Board of Trustees between the Annual Meetings of the Association, the Vice-President for that division of the State in which the vacancy occurs, shall serve as a member of the Board of Trustees until the next annual meeting.

SEC. 5. The Board of Trustees shall be the Executive Board of the Association to determine the policy and details of management between sessions of the House of Delegates.

SEC. 6. The Board of Trustees shall serve without compensation, except the Chairman; who is ex-officio the Treasurer, whose compensation shall be fixed by the House of Delegates; however, their actual expense in attending the meetings of the Board shall be paid out of the funds of the Association. This is not to apply where a meeting is held at the Annual Meeting.

ARTICLE X

Fiscal Year and Dues

SECTION 1. The fiscal year of the Association shall be from January 1 through December 31.

SEC. 2. The annual dues of Active Members shall be fixed in the By-Laws. No dues shall be paid by Veteran, Associate, Student, or Honorary Members. (Chap. IX.)

ARTICLE XI

Referendum

The General Meeting of the Association may, by a two-thirds vote of the members present and voting, order a general referendum upon any question pending before, or already decided by the House of Delegates. The House of Delegates may, by a similar vote of its own members, or after a vote of the general meetings, submit any such question to the membership of the Association for a final vote. If the persons voting shall comprise a majority of all the members registered at that Annual Meeting, a majority of such vote shall determine the question and be binding upon the House of Delegates.

ARTICLE XII

The Seal

The Association shall have a common seal, with the power to break, change or renew the same at pleasure, by action of the House of Delegates.

ARTICLE XIII

Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates registered at the Annual Session; provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been sent officially to each component Society at least two months before the Session at which action is to be taken.

BY - LAWS

CHAPTER I

Membership and Sections

SECTION 1. All Active Members, Associate Members, Veteran Members, Student Members, Honorary Members, and invited guests shall be privileged to attend all scientific meetings and take part in the discussion of all scientific questions, but Active Members and Veteran Members only shall be entitled to vote and hold office.

SEC. 2. A physician whose name is upon a properly certified roster of members, or list of delegates of a chartered component Society, which has paid its annual assessment, or an invited guest, is eligible to register at the annual meeting.

SEC. 3. No person who is under sentence of suspension or expulsion from any component Society of this Association, or whose name has been dropped from its roll of members shall be entitled to any of the rights or benefits of this Association nor shall he be permitted to take any part in any of its proceedings until such time as he has been relieved of such disability.

SEC. 4. Each member in attendance at the Annual Meeting shall enter his name on the registration book or card, indicating the component Society of which he is a member. When his right to membership has been verified, by reference to the roster of his society, he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that meeting. No Member or Delegate shall take part in any of the proceedings of an Annual Meeting until he has complied with the provisions of this Section.

CHAPTER II

Annual and Special Meetings of the Association

SECTION 1. The Association shall hold an Annual Meeting beginning on Monday preceeding the second Tuesday in April, and at such place as has been fixed at the preceding Annual Session, but it is agreed that the meetings shall rotate annually to Middle, West, and East Tennessee.

The House of Delegates shall meet annually at the place of the Annual Meeting of the Association. It shall meet on Sunday preceding the second Tuesday of April and thereafter until its work is completed.

If the business interests of the Association require, it may meet in advance of or remain in session after the final adjournment of the general meeting, such extraordinary sessions being subject

to the call of the Speaker of the House of Delegates.

SEC. 2. Special Meetings of either the Association or House of Delegates shall be called by the President at his discretion or upon petition of twenty Delegates.

SEC. 3. If for any valid reason an Annual Meeting cannot be held on date as named, the President, the three Vice-Presidents, the Secretary, and the Board of Trustees may fix another date, provided the Secretaries of component Societies are notified as far in advance of the changed date as possible by the Secretary of the Association and, if time permits, each Member shall be notified by a personal communication mailed to his address.

CHAPTER III

General Meetings

SECTION 1. The General Meeting shall include all registered Active Members, Associate Members, Veteran Members, Student Members, Honorary Members and guests, all of whom shall have equal rights to participate in the proceedings and discussions. Each General Meeting shall be presided over by the President, or, in his absence or disability, or by his request, by one of the Vice-Presidents. Before it, at such time and place as may have been arranged, shall be delivered the Annual Address of the President and the annual orations; and the entire time of the meeting, so far as possible, shall be devoted to papers and discussions, clinics, and demonstrations, relating to scientific medicine.

SEC. 2. The General Meeting shall have authority to create committees or commissions for scientific investigation of special interest and importance to the profession and public, and to receive and dispose of reports of the same, but any expense in connection therewith must first be authorized by the House of Delegates.

SEC. 3. Except by special vote, the order of exercises, papers, and discussions as set forth in the official program, shall be followed from day to day until it has been completed, and all papers omitted shall be recalled in regular order.

SEC. 4. No address or paper before the Association, except the address of the President and invited guests, shall occupy more than twenty minutes in its delivery; and no Member may speak longer than five minutes, nor more than once on the same subject, provided each essayist be allowed five minutes in which to close the discussion.

SEC. 5. All papers read before the Society shall be its own property. Each paper shall be deposited with the Secretary when read.

CHAPTER IV

House of Delegates

SECTION 1. The House of Delegates shall meet annually at the time and place of the Annual Meeting of the Association. It shall meet on the Sunday preceding the second Tuesday in April

and thereafter until its work is completed. If the business interests of the Association require, it may meet in advance of or remain in session after the final adjournment of the General Meeting, such extraordinary sessions being subject to the call of the Speaker of the House of Delegates.

SEC. 2. Each component Society shall be entitled to send to the House of Delegates each year one delegate for every fifty active and veteran members and one for every fraction thereof, based upon the number of such members in the component Society in good standing as of December 1 of the year preceding the session of the House. Each component Society holding a charter from the Association, which has made its annual report and paid its assessment as provided in the Constitution and By-Laws, shall be entitled to at least one delegate.

SEC. 3. A majority of the registered Delegates shall constitute a quorum, and all the sessions of the House of Delegates shall be open to Members of the Association.

SEC. 4. From among members of the House of Delegates the Speaker of the House of Delegates, for the purpose of expediting proceedings, shall appoint Reference Committees to which reports and resolutions shall be referred. He shall also appoint a Committee on Credentials and such other committees as may be considered by him to be necessary.

SEC. 5. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body, for a period of two years, no two residing in the same grand division of the State, except when more than three delegates are authorized. The Association shall pay the expenses of each Delegate representing the Association at the American Medical Association meetings.

SEC. 6. It shall, upon application, provide and issue charters to component Societies organized to conform to the spirit of this Constitution and By-Laws of the Association, or in the ethics of the American Medical Association, when so recommended by the Councilors.

SEC. 7. In sparsely-settled sections it shall have authority to organize the physicians of two or more counties into one component Society, the name to be chosen by that Society, so as to distinguish them from district and other classes of Societies; and these Societies, when organized and chartered, shall be entitled to all the privileges and representations provided herein for component Societies.

SEC. 8. It shall have authority to appoint special committees for special purposes from its own membership, or from among members of the Association who are not members of the House of Delegates; and such committeemen shall report to the House of Delegates in person, and may participate in the debate thereon.

CHAPTER V Election of Officers

SECTION 1. All elections shall be by ballot of the House of Delegates and the majority of the votes cast shall be necessary to elect.

SEC. 2. On the first day of the Annual Session, the Speaker of the House shall appoint three temporary chairmen to preside over the assembled delegates of each of the three grand divisions of the State until a chairman is elected to conduct the procedures of selection of three delegates from each of the three respective divisions, to serve as a committee on nominations, no two of whom shall be from the same component Society. It shall be the duty of this Committee to consult with other members in selecting candidates for the offices, and to hold one or more meetings, at which the best interests of the Association and of the profession of the State for the ensuing year shall be carefully considered. The Committee shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the names of three members for the office of President-Elect all in the same grand division of the state and from which the President-Elect is to be elected, and of one Member for each of the other offices to be filled at the General Session, except the Council. (For list of officers and terms of election, see Article VIII of the Constitution.)

SEC. 3. The Councilors shall be elected on the afternoon of the first day of the Session after their report is made to the House of Delegates, so that they may organize and plan the year's work. The nominations of Councilors may be made by the Nominating Committee.

SEC. 4. The report of the Nominating Committee and the election of officers, except the Councilors, shall be the first order of business of the House of Delegates, after reading of the minutes on the morning of the second day of the General Meeting of the Association.

SEC. 5. Nothing in this Chapter shall be construed to prevent additional nominations being made by members of the House of Delegates.

SEC. 6. In balloting for the nominees for President-Elect, if on the first ballot no one receives a majority of the votes cast, the name receiving the smallest number of votes shall be dropped, and the balloting shall proceed in this manner until an election is had.

CHAPTER VI Duties of Officers

SECTION 1. The President, or his appointees, shall preside at all meetings of the Association. He shall appoint all members of Committees not otherwise provided for, shall deliver an Annual Address at such time as may be arranged, shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall be the head of the profession of the State during his term of office, and, as far as practicable, shall visit, by invitation, the various Sections of the State and

assist the Councilors in building up the Component Societies and in making their work more practical and useful. The retiring President shall be ex-officio a member of the Board of Trustees for one year.

SEC. 2. The Vice-Presidents shall assist the President in the discharge of his duties, as requested by the President. In the event of his death, resignation, inability to serve, or removal from office, the Vice-President to succeed him shall be from the same Grand Division of the State.

SEC. 3. The Treasurer shall give bond for the trust reposed in him, for such amount as the remaining members of the Board of Trustees may name, said bond to be made by a regular bonding company, and paid for by the Association. He shall demand and receive all funds due the Association, together with bequests and donations. All funds shall be deposited in a National Bank. He shall pay money out of the treasury on bills certified to by the Secretary or Executive Director of the Association only; he shall subject his accounts to such examination as the House of Delegates may order; he shall annually render an account of his acts and of the state of the funds in his hands.

SEC. 4. The Secretary-Editor of this Association, as Chairman, acting with the Committee on Scientific Work, shall prepare and issue the programs for and attend the meetings of the Association, and shall keep the minutes, or cause them to be kept, of the proceedings. He shall be Editor-in-Chief of the Journal of the Association and shall discharge such other duties as the Trustees shall specifically direct. His honorarium shall be determined by the Board of Trustees.

SEC. 5. The Board of Trustees shall be empowered to select and remove, without assigning cause, an Executive Director. The Executive Director may or may not be a member of this Association, and may or may not be a graduate in medicine. He shall be custodian of all records, books, papers, building and property belonging to the Association, except such property belonging to the Secretary-Editor, the Council, the Sections and the various committees, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which may come into his hands; he shall provide for the registration of members and delegates at the Annual Meeting; and upon request, shall transmit a copy of this list to the American Medical Association. Insofar as in his power, he shall use the printed matter, correspondence, and influence of his office to aid the Councilors in the organization of the component Societies and in the extension of the power and influence of this Association. He shall visit each councilor district at least once a year and oftener, if advisable, and assist the Councilors in organizing unorganized counties, and use every means possible to promote the interests of the Association. Should the Executive Director and Councilors deem it wise to organize two or more

counties into one society, they shall have the right to take such action and such societies shall be recognized by the State Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall discharge such other duties as the Board of Trustees shall direct. He shall act as business manager of the Journal of the Association, and he shall be the director of all activities in the central office. His salary shall be determined by the Board of Trustees. He shall be required to furnish bond paid for by the Association in the amount designated by the Board of Trustees.

SEC. 6. The Speaker of the House of Delegates shall preside over that body and perform the usual duties of such officer. He shall sign the Minutes of its transactions when same have been read and approved by the House. In the event of his absence for any cause, or upon request of the Speaker, the Vice Speaker of the House of Delegates, shall perform those duties. The Speaker shall also be ex-officio member of the Board of Trustees.

SEC. 7. In the absence of the Secretary, the House of Delegates may elect a Temporary Secretary.

SEC. 8. In the event of the death, resignation, disability, or removal of any official of this Association, other than the President, or a member of the Board of Trustees, the vacancy so created shall be filled by the Board of Trustees, and the officer so appointed shall serve until the next regular session of the House of Delegates.

This shall include Delegates and Alternate Delegates to the House of Delegates of the American Medical Association.

CHAPTER VII Council

SECTION 1. The Council shall hold meetings during the Annual Meeting of the Association, and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet after the election of Councilors on the second day of the Annual Session for organization, and for the outlining of work for the ensuing year. At this meeting it shall keep a permanent record of its proceedings. Five Councilors shall constitute a quorum.

SEC. 2. Each Councilor shall be the representative of the Tennessee State Medical Association in his District in matters pertaining to the conduct of members and of component societies. He shall make investigations and suggest solutions of problems which come to his attention. He shall make annually a written report of his activities to the Council.

SEC. 3. The Council may recommend to the House of Delegates censure, suspension, or expulsion of any member; or recommend to the House of Delegates censure or revocation of the Charter of any component society after a hearing before such persons and in such manner as the Council

shall direct at which the accused member or component society, with or without counsel, shall be given an opportunity for a full and equitable hearing; or may suspend or drop from membership any member for the non-payment of dues. Any member shall be dropped from membership automatically upon the filing by any person with the Council of a certified copy of the final order of revocation of license of such member by any tribunal of competent jurisdiction. Any member suspended, expelled, or dropped from the membership may be reinstated by the affirmative vote of the majority of the House of Delegates upon recommendation of the Council. It shall make such report or recommendation to the House of Delegates as it deems to be the best interest of the Association.

CHAPTER VIII

Committees and Their Duties

SECTION 1. (a) The Committees of this Association shall be Standing and Special Committees. The Standing Committees shall be as follows:

1. A Committee on Scientific Work.
2. A Committee on Public Policy and Legislation.
3. A Liaison Committee to the Public Health Department.
4. A Committee on Memoirs.
5. An Insurance Committee.
6. A Committee on Post-Graduate Medical Education.
7. A Committee on Cancer.
8. A Committee on Hospitals.
9. A Grievance Committee.
10. An Advisory Committee to the State Department of Public Welfare.
11. A Public Service Committee.
12. A Rural Health Committee.
13. A Committee on Prepaid Health Insurance.
14. A Committee on Tennessee Medical Foundation.

(b) The members of these standing committees shall be appointed by the Board of Trustees. The terms of service of members of standing committees shall be for a period of one to three years except when otherwise provided in the By-Laws.

The appointments shall be made for such a period of years that the terms of not more than one-third of the members will terminate each year. Each standing committee shall make a report to the House of Delegates at each Annual Session.

(c) Special Committees may be appointed from time to time by the President or the Board of Trustees to carry on special activities.

SEC. 2. The Committee on Scientific Work shall consist of ten members, nine of whom are appointed. The Secretary-Editor shall be a member, and Chairman of the Committee. It is the duty of this Committee to plan and provide the scientific program for each meeting of this Association.

Previous to each Annual Meeting it shall prepare and issue a scientific program which shall be adhered to by the Association as nearly as practicable. It shall also be the duty of this Committee actively to assist the Secretary-Editor and those acting as the Editorial Board in preparing the scientific portion of the Journal of the Association.

SEC. 3. The Committee on Public Policy and Legislation shall consist of seven members, five to be appointed by the Board of Trustees, and ex-officio the President and Secretary. Under the direction of the House of Delegates, it shall represent the Association in securing and enforcing legislation in the interest of the public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall utilize every organized influence of the profession to promote the general influence in local, state, and national affairs and elections. Its work shall be done with the dignity becoming a great profession, and with that wisdom which shall make effective its power and influence. It shall have authority to be heard before the entire Association upon questions of great concern at such times as may be arranged during the Annual Meeting.

SEC. 4. The Liaison Committee to the State Public Health Department shall consist of five members, to be appointed by the Board of Trustees of the Association and who shall name the Chairman of the Committee for the period of the appointee's term of office. At least one member shall be from each grand division of the State. One member shall be appointed for a period of five years; one for four years; one for three years; one for two years; and one for one year. Thereafter, one member shall be appointed annually for a period of five years.

It shall be the duty of this Committee to confer with the officials of the Department of Health of the State in matters of policy affecting the profession of the State; and it shall be the further duty of this Committee to confer with any member or members of this Association in matters concerning the activities of the Department of Health of the State. Provided, that all matters over which this Committee shall have jurisdiction shall be presented to the Committee, through its Chairman, in writing.

It shall be the duty of the Committee to make a detailed annual report to the House of Delegates of its activities; said report being subject to review by the House of Delegates. In the interval between the annual sessions of the House of Delegates the action of this Committee by a majority vote shall be final.

In the event of a vacancy in the membership of the Committee for any cause, said vacancy shall be filled by appointment by the Board of Trustees, said appointee assuming the position on the Committee for the unexpired term of the member whom he succeeds. The House of Delegates directs the Liaison Committee to act in an advisory

manner to the Public Health Council as now constituted, in the matter of formation of all policies.

SEC. 5. The Committee on Memoirs shall perform such duties as will contribute to the proper recognition of deceased members.

SEC. 6. The Committee on Insurance shall consist of three members, one from East, one from Middle, and one from West Tennessee, to be appointed by the Board of Trustees of the Association. One member shall be appointed for one year, one for two years, and one for three years. Thereafter one member shall be appointed annually for a term of three years. Any vacancy shall be filled for any unexpired term that might occur by the Board of Trustees at any Annual Session.

It shall be the duty of this Committee to attend to all group insurance in which this Association is or may become interested. It shall have power to select insuring companies, accept or reject master policies, arrange premium rates, and act as trustees for this Association in the matter of such group insurance.

All actions of the Committee shall be subject to the approval of the Board of Trustees.

The Chairman of the Committee shall be designated by the Board of Trustees. He shall report to the House of Delegates at each Annual Session upon the activities of the Committee during the preceding year. All necessary expenses of the Committee in the performance of its duties shall be paid by the Treasurer of this Association upon certification of the expenses by the Chairman of the Committee, but this shall not apply to attendance at meetings held at the Annual Meeting.

SEC. 7. The Committee on Postgraduate Medical Education shall have for its duties the promotion of postgraduate medical activities among members of this Association.

The members of the Committee shall be appointed by the Board of Trustees and shall have representation from each Councilor District, from each of the major specialties, and from each participating medical school.

The Chairman shall be appointed by the Board of Trustees.

SEC. 8. The Committee on Cancer shall promote educational activities directed at two objectives: (a) the fullest possible knowledge on the part of the medical profession concerning the recognition of malignancy in its early stages, and (b) the disposition on the part of lay people to consult a well-qualified physician when a condition presents which may be an early malignancy.

SEC. 9. The Committee on Hospitals shall consider all matters relating to the operations of hospitals as the same may affect the medical profession and the public welfare. It shall make recommendations to the House of Delegates when in its judgment action should be taken on any matter pertaining to the policies enforced in the operation of a hospital.

The principal objective of this Committee is that of preserving a proper relationship between

the medical profession and the hospitals in the State. When policies are formulated and enforced by a hospital, which in the opinion of the Committee constitute a violation of the ethical principle which should govern the relationship of a hospital to members of the medical profession and the public, it shall be its duty to bring the matter to the attention of the medical profession and to take such other steps as are deemed necessary and appropriate to correct the practice.

The Committee is charged with the duty of recommending legislation on the subject to the House of Delegates should such a step be considered advisable.

SEC. 10. The Grievance Committee's duties shall be to act as a body to hear any complaints that are registered by patients against any physician at whose hands he thinks he has suffered an injustice. This Committee shall consist of three members—one from each Grand Division of the State. The Committee will be composed of the last three surviving Ex-Presidents. The Ex-president which has served on the Committee for the two previous years will serve as Chairman during the third year of his term on the Committee.

SEC. 11. The Advisory Committee to the State Department of Public Welfare shall consist of five members to be appointed by the Board of Trustees for a term of five years, provided, that the first appointments shall be for the following terms: one member for one year; one member for two years; one member for three years; one member for four years; and one member for five years—all subsequent appointments to be for a term of five years.

The Committee shall (1) assist the Department of Public Welfare formulate policies which concern the relationship of the Department to the medical profession; (2) assist in determining disability for public assistance programs of the Department and other medical problems related to public assistance; and (3) advise the commissioner on the medical aspects of other departmental projects or problems.

The Committee, through its Chairman, shall make an annual report of its activities to the House of Delegates.

SEC. 12. The Public Service Committee—This Committee shall be appointed by the Board of Trustees and shall consist of one representative from each Councilor District and six members from the state-at-large, two members being appointed from each grand division.

It shall be the duty of the Public Service Committee to enlighten and direct public opinion in regard to the problems of health and medical care, and the promotion of understanding between the public and the medical profession.

This Committee shall have a full-time Secretary who will be the Public Service Director and who shall be a member of the Central Office staff. He shall be responsible for the conduct of the activities of the Committee throughout the State

and he will assist with the other field services of the Association.

The Public Service Director shall be employed or removed without assignment of cause by the Board of Trustees upon recommendation of the Public Service Committee. His salary shall be determined by the Board of Trustees.

The Public Service Committee shall submit to the Board of Trustees annually a proposed budget.

SEC. 13. Rural Health Committee—The Rural Health Committee shall be appointed by the Board of Trustees. The Chairman shall be appointed by the Board of Trustees.

The duties of the Rural Health Committee shall be to promote the improvement of health standards in rural areas of Tennessee.

SEC. 14. The Prepaid Health Insurance Committee—This Committee shall be composed of such members, lay and medical, as deemed necessary by the Board of Trustees. A chairman shall be designated by the Board of Trustees.

The duties of the Prepaid Health Insurance Committee shall be the perpetual study and investigation of the problems of prepaid health insurance.

SEC. 15. The Committee on Tennessee Medical Foundation shall consist of nine members to be appointed by the Board of Trustees, the members to serve terms of three years each, with three members to be appointed each year; that the first appointments shall be made for the following terms: three members for three years; three members for two years and three members for one year, with all subsequent appointments to be for terms of three years.

The Committee shall formulate the policies and determine the program of the Tennessee Medical Foundation. It shall have the general management and control of the activities of the Foundation. The Committee, through its chairman, shall make an annual report to the House of Delegates.

At all meetings of the Committee, five members shall constitute a quorum for the transaction of business.

The Chairman of the Committee shall be appointed by the Board of Trustees.

The duties of the Committee shall be to study the problems involved with medical care in rural and isolated areas and to assist in providing medical care to such areas.

The Committee on Tennessee Medical Foundation may establish such subordinate committees as necessary to conduct the business of the Foundation. The Committee on Tennessee Medical Foundation shall also constitute the members of the Board of Directors of the Tennessee Medical Foundation.

CHAPTER IX

Assessments and Expenditures

SECTION 1. The annual dues shall be determined by the House of Delegates and shall be levied per capita on the active members of the chartered component societies. The annual dues

shall be payable on January 1 of the year for which they are levied, but any component society reporting dues to the Tennessee State Medical Association shall be considered delinquent if payment of dues are not made by July 1 of the year for which they are levied. The secretary of each component society shall cause to be collected and shall forward to the offices of the State Association, the dues for its members. Any member whose name has not been reported for enrollment and whose dues for the current year have not been remitted to the secretary of the State Association on or before July 1 of the year for which they are levied shall stand delinquent until his name is properly reported and his dues for the current year properly remitted. Every active member of the Association shall receive the Journal without cost.

SEC. 2. *A new member joining the Association for the first time and who is so reported after July 1 of a given year, shall pay one half of the annual dues for that year only.*

SEC. 3. The Honorary Members of any component medical society are exempt from payment of dues, but a complete list of their names, certified by the respective component medical society, will be kept in the Headquarters Office of the Tennessee State Medical Association. Likewise, a component medical society is required to report a list of its Veteran Members who have been elected by that society and the Journal will be furnished to Veteran Members without cost.

SEC. 4. The secretary or treasurer of each component society shall forward a roster of all officers, membership, a list of delegates to the House of Delegates of the Tennessee State Medical Association, together with a list of non-affiliated physicians of the county if practical, and also a list of members who have died during the year, to the Executive Director of this Association thirty days in advance of the annual meeting.

SEC. 5. The record of payment of dues on file in the offices of the Tennessee State Medical Association shall be final as to the fact of payment by a member of the Association.

CHAPTER X

Rules of Conduct

The Principles set forth in the Code of Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

CHAPTER XI

The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's "Rules of Order."

CHAPTER XII

Component Societies

SECTION 1. All Component Societies now in affiliation with the State Association, or those that may hereafter be organized in this State, which have adopted principles of organization not in con-

flict with this Constitution and By-Laws, may, upon application to the House of Delegates, receive a charter from and become a component part of this Association.

SEC. 2. Charters shall be issued only upon approval of the House of Delegates, and shall be signed by the President and Secretary of this Association. The House of Delegates shall have authority to revoke the charter of any component Society, whose actions are in conflict with the letter or spirit of this Constitution and By-Laws, or the code of ethics of the American Medical Association upon recommendation of the Council.

SEC. 3. Each component Society shall judge of the qualifications of its own members; but as such Societies are the only portals to this Association, and to the American Medical Association. Every reputable and legally registered physician, who is practicing or who will agree to practice nonsectarian medicine, shall be entitled to membership. Each component Society of this Association may amend its constitution and/or by-laws to provide that the payment of dues to the American Medical Association shall be a condition of active membership in that society. Before a charter is issued to any component Society, full and ample notice and opportunity shall be given to every such physician in the County to become a member.

SEC. 4. Only one component Medical Society shall be chartered in any County. When more than one County Society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the District, if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

SEC. 5. Any physician who may feel aggrieved by the action of the Society in his County in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council.

SEC. 6. In hearing appeals, the Council may admit oral or written evidence, as in its judgment will best and more fairly present the facts, but in the case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise should precede all such hearings.

SEC. 7. When a Member in good standing in a component Society moves to another County in the State, his name, upon request, and with the consent of his component Society, shall be transferred, without cost, to the roster of the com-

ponent Society in whose jurisdiction he moves, but he shall not hold membership in more than one component Society.

SEC. 8. A physician living on or near a County line may hold his membership in that County most convenient for him to attend, on permission of the Society in whose jurisdiction he resides, and with consent of his Councilor.

SEC. 9. Each component Society shall have general direction of the affairs of the profession in the County or Counties and its influence shall be constantly exerted for bettering the scientific, moral, and material condition of every physician in the County; and systematic effort shall be made by each member, and by the Society, as a whole, to increase the membership until it embraces every qualified physician in the County.

SEC. 10. Frequent meetings shall be encouraged and the most attractive programs arranged that are possible. The younger members shall be especially encouraged to do postgraduate and original research work and to give the Society the benefits of such labors. Official position and other preferments should be unstintingly given to such members.

SEC. 11. At some meetings in advance of the Annual Meeting of this Association, each component Society shall elect a Delegate or Delegates to represent it in the House of Delegates of this Association, in the proportion of one Delegate and one alternate to each fifty members or fraction thereof; and the Secretary of the Society shall send a list of such Delegates to the Secretary of this Association at last ten days before the Annual Meeting.

SEC. 12. The Secretary of each component Society shall keep a roster of its members and shall furnish an official report of the membership to the Secretary of this Association at least once each year and oftener if circumstances as to membership may require. The Secretary shall note any changes in the personnel of the membership, with special reference to changes due to death and removal from the district.

CHAPTER XIII

Amendments

In order to amend the by-laws of this Association, a two-thirds majority of the members of the House of Delegates present and voting shall be necessary. Such amendment, after having been filed in writing, shall lie over one day. Any by-law may be suspended during the pending meeting by unanimous consent.

PLACEMENT SERVICE

The placement service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee.

Locations Wanted

A 33 year old married physician. Presbyterian. Graduate University of Madrid, Spain. Board eligible in neurosurgery. Desires associate or assistant practice in neurosurgery in Tennessee community of 100,000. Available immediately.

LW-342

A 30 year old married physician. Protestant. Graduate Tulane University. Desires assistant, associate or clinical practice in Ob-Gyn in middle or west Tennessee community of 50,000. Available June, 1960

LW-345

A 38 year old married physician. Presbyterian. Graduate University of Texas. Desires to practice Radiology in small Tennessee community. Available June, 1960.

LW-359

A 32 year old married physician. Methodist. Graduate Vanderbilt University. Completing 3rd year residency training in Ob-Gyn. Desires assistant or associate practice in Ob-Gyn in Tennessee. Available July, 1960.

LW-360

A 32 year old married physician. Methodist. Graduate University of Louisiana. Desires Ob-Gyn practice in Tennessee community of 10,000 or over. Preferably clinical or association. Available July, 1960.

LW-367

A 26 year old married physician. Lutheran. Graduate Medical College of Virginia. Desires clinical or group-type general practice in east Tennessee community of 5,000-25,000. Available August, 1960.

LW-368

A 28 year old married physician. Methodist. Graduate University of Tennessee. Desires location for general practice in Tennessee community of 8,000 or more. Available August, 1960.

LW-369

A 28 year old married physician. Presbyterian. Graduate University of Tennessee. Desires clinical, assistant, or associate general practice location in Tennessee community of 5,000 or more. Available July, 1960.

LW-370

A 37 year old married physician. Methodist. Graduate University of Tennessee. Desires private practice in general surgery in Tennessee community of 20,000 to 50,000. Available June, 1960.

LW-373

A 42 year old married physician. Jewish. Graduate University of Basel, Switzerland. Desires group, partnership or private practice in radiology in east or middle Tennessee community. Diplomate of the American Board of Radiology. Available June, 1960.

LW-376

Physicians Wanted

Physician in east Tennessee community of 30,000 desires an associate GP and surgeon. Office space and some equipment provided.

PW-127

Clinic in east Tennessee community of 4,000 has opening for GP interested in obstetrics. Hospital located in community.

PW-128

Northwest Tennessee community of 1200, trade area 3,000. Desires GP. Nearest hospital 16 miles. Office space available. Near large recreational area.

PW-129

Physician in middle Tennessee town of 200,000 desires an associate GP. Office space and equipment available.

PW-130

Physician in east Tennessee community of 6,000 desires an associate GP. New private office, examining rooms and equipment available. Hospital located in community.

PW-134

West Tennessee town of 500,000 in need of an eye, ear, nose and throat specialist. Office and equipment already set up in choice location in downtown office building. For sale on reasonable terms because of death.

PW-135

Physician in middle Tennessee town of 200,000 desires associate or independent internist or GP. Office space and equipment provided.

PW-146

Small southern Tennessee community of 500 in need of general practitioner. No other physician in community. Office space and some equipment available. Nearest hospital 13 miles.

PW-147

Physician in west Tennessee town of 500,000 desires an associate GP. Completely furnished office available.

PW-148

East Tennessee community of 1100 desires general practitioner. One other doctor in community. Office space and equipment will be provided to suit physician. 40-bed hospital located in community. Good location.

PW-149

OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION, 1960-61

President—Ralph O. Rychener, M.D., 1720 Exchange Bldg., Memphis
President-Elect—W. O. Vaughan, M.D., 2103 Hayes Street, Nashville
Vice-President—J. Kelley Avery, M.D., Union City
Vice-President—C. B. Roberts, M.D., Sparta
Vice-President—Wm. I. Proffitt, M.D., 620 N. Church St., Cleveland
Secretary-Editor—R. H. Kampmeier, M.D., Vanderbilt Hospital, Nashville
Executive Director—Mr. J. E. Ballentine, 112 Louise Ave., Nashville 5

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 *G. H. Berryhill, M.D., (1963), 613 W. Forest Avenue, Jackson
 Joseph W. Johnson, Jr., M.D., (1961), Interstate Bldg., Chattanooga

Carl C. Gardner, Jr., M.D., (1963), 815 So. Garden St., Columbia
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*Members of Executive Committee of Board of Trustees

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Vice-Speaker—J. Malcolm Aste, M.D., 188 South Bellevue, Memphis

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Sixth District—Laurence A. Grossman, M.D., 1816 Hayes St., Nashville (1961)
Seventh District—Wm. K. Owen, M.D., Pulaski (1962)
Eighth District—Frank A. Moore, M.D., Jackson Clinic, Jackson (1961)
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Tenth District—Duane M. Carr, M.D., 20 So. Dudley St., Memphis (1961)

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Wm. C. Chaney, M.D., Physicians & Surgeons Bldg., Memphis (1961)
 Chas. C. Smeltzer, M.D., 521 W. Cumberland Ave., Knoxville (1962)
 Daugh W. Smith, M.D., 1926 Hayes St., Nashville (1961)
Alternates—Harold B. Boyd, M.D., 869 Madison Ave., Memphis (1961)
 Wm. J. Sheridan, M.D., Medical Arts Bldg., Chattanooga (1962)
 R. H. Kampmeier, M.D., Vanderbilt Hospital, Nashville (1961)

PRESIDENTS AND SECRETARIES OF COUNTY MEDICAL SOCIETIES, 1960-61

COUNTY

Anderson-Campbell
 Bedford
 Benton-Humphreys
 Blount

Bradley

Chattanooga-Hamilton

Cocke
 Coffee
 Consolidated Medical
 Assembly of
 West Tennessee
 Cumberland
 Davidson

Dickson
 Fentress
 Franklin
 Giles
 Greene

Hamblen
 Hawkins
 Henry
 Hickman-Perry
 Jackson
 Knoxville

Lauderdale
 Lawrence
 Lincoln
 Macon
 Marshall
 Maury

McMinn
 Memphis-Shelby

Monroe
 Montgomery

Northwest Tennessee

Overton
 Putnam
 Roane

Robertson

Rutherford

Scott
 Sevier
 Smith
 Sullivan-Johnson

Sumner
 Tipton
 Warren
 Washington-Carter-Unicoi

Weakley
 White
 Williamson
 Wilson

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 Thomas S. Weaver, M.D., Nashville

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 Jo C. Anderton, M.D., Winchester
 John U. Speer, M.D., Pulaski
 Rae B. Gibson, M.D., Greeneville

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 Chas. C. Smeltzer, M.D., Knoxville

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 Carson Taylor, M.D., Lawrenceburg
 L. M. Donalson, M.D., Fayetteville
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 (No Report)
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C. D. Giles, M.D., Gallatin
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 (No Report)
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 Ira Porter, M.D., Greenfield
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 T. R. Puryear, M.D., 239 E. Main, Lebanon

TENNESSEE STATE MEDICAL ASSOCIATION 1960-1961 STANDING COMMITTEES

Scientific Work

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Wendell W. Wilson, Old Hickory
Baker Hubbard, Jackson
George A. Mitchell, Chattanooga
J. Sumpter Anderson, Jr., Nashville
Jean M. Hawkes, Memphis
George R. Livermore, Jr., Memphis
E. White Patton, Chattanooga
John H. Burkhart, Knoxville
J. W. Erwin, Blountville

Hospitals

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Chester K. Jones, Jackson (1961)
John W. Adams, Jr., Chattanooga (1961)
Merlin L. Trumbull, Memphis (1963)
James A. Burdette, Knoxville (1963)

Legislative and Public Policy

Joseph McK. Ivie, Nashville (1961)
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T. R. Ray, Shelbyville (1962)
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Wm. J. Sheridan, Chattanooga (1963)
Byron O. Garner, Union City (1963)
Addison B. Scoville, Jr., Nashville (1961)
Harmon L. Monroe, Erwin (1961)
R. B. Wood, Knoxville (1961)
Sam Hay, Murfreesboro (1961)
John U. Speer, Pulaski (1961)
G. H. Berryhill, Jackson (1961)
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R. H. Kampmeier, *ex officio*, Nashville

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Wm. A. Garrott, Cleveland (1962)
John R. Thompson, Jr., Jackson (1963)
Thomas S. Weaver, Nashville (1964)

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E. Charles Sienknecht, Knoxville
Harrison J. Shull, Nashville
Van Fletcher, Chattanooga
L. A. Killeffer, Harriman
Sam H. Hay, Murfreesboro
Henry T. Kirby-Smith, Sewanee
B. L. Pentecost, Memphis
Wm. A. Garrott, Cleveland

Consultative Committee on Administration of Voluntary Prepaid Medical Care Plans

Carl N. Gessler, *Chairman*, Nashville
R. B. Wood, Knoxville
H. P. Clemmer, Milan
William R. Bishop, Chattanooga
J. J. Range, Johnson City
George L. Smith, Winchester
J. Palmer Moss, Memphis
Garth E. Fort, Nashville
Baker Hubbard, Jackson

Disaster Planning

Moore Moore, Jr., *Chairman*, Memphis (1962)
Fred D. Ownby, Nashville (1962)
Joe L. Raulston, Jr., Knoxville (1963)
R. C. Robertson, Chattanooga (1963)
Chester K. Jones, Jackson (1961)
Ralph H. Shilling, Gatlinburg (1961)

Industrial Health and Workmen's Compensation

George E. Duncan, *Chairman*, Nashville
Edward G. Johnson, Chattanooga
Peter J. Flippen, Tullahoma
R. A. Calandrucio, Memphis
Wm. B. Camp, Kingsport

Liaison Committee to the United Mine Workers of America

Cecil E. Newell, *Chairman*, Chattanooga
B. M. Overholt, Knoxville
John H. Saffold, Knoxville

Advisory Committee to the Woman's Auxiliary

Wm. A. Garrott, *Chairman*, Cleveland
Robert L. Akin, Knoxville
Joseph D. Anderson, Nashville
E. Park Niceley, Knoxville
Robert M. Foote, Nashville

Blood Banks

Merlin L. Trumbull, *Chairman*,

Julian K. Welch, Jr., Brownsville
J. T. Moore, Jr., Algood
Byron O. Garner, Union City
Robert G. Brown, Greeneville
J. H. Hite, Jr., Pulaski
James W. Ellis, Nashville
Edward R. Atkinson, Clarksville
John R. Thompson, Jr., Jackson

Memoirs

Henry L. Douglass, *Chairman*, Nashville (1962)
N. S. Shofner, Nashville (1961)

Prepaid Health Insurance

James A. Kirtley, Jr., *Chairman*, Nashville
Joseph W. Johnson, Jr., Chattanooga
Daugh W. Smith, Nashville
Jas. C. Gardner, Nashville
E. L. Caudill, Jr., Elizabethton
Robert M. Finks, Nashville
Wm. A. Garrott, Cleveland
James N. Proffitt, Maryville
Greer Ricketson, Nashville
Harry T. Moore, Jr., Nashville
Luther A. Beazley, Donelson
J. Cash King, Memphis
Thomas F. Parrish, Nashville
W. T. Satterfield, Memphis
Wm. R. Bishop, Chattanooga
Fontaine B. Moore, Jr., Memphis
B. K. Hibbett, III, Nashville
Robert N. Buchanan, Jr., Nashville
Mr. Clyde York, Columbia
Mr. Zack Coles, Nashville
Mr. Charles L. Cornelius, Sr., Nashville
R. H. Kampmeier, *ex officio*, Nashville

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James A. Kirtley, Jr., *Chairman*, Nashville
Daugh W. Smith, Nashville
Robert M. Finks, Nashville
Thomas F. Parrish, Nashville
Jas. C. Gardner, Nashville
B. K. Hibbett, III, Nashville
Mr. Charles L. Cornelius, Sr., Nashville
R. H. Kampmeier, *ex officio*, Nashville

Cancer

Ralph H. Monger, *Chairman*, Knoxville (1961)
R. R. Braund, Memphis (1962)
Louis Rosenfeld, Nashville (1961)
S. S. Marchbanks, Chattanooga (1962)
Hollis E. Johnson, Nashville (1961)
Walter D. Hankins, Johnson City (1963)

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F. T. Billings, Jr., Nashville (1964)
Lamb B. Myhr, Jackson (1961)
Joseph J. Baker, Nashville (1961)
Aubrey Harwell, Nashville (1965)

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John W. Adams, Jr., Chattanooga

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L. W. Edwards, Nashville
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Wm. C. Chaney, Memphis
George K. Henshall, Chattanooga
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The so-called tranquilizers have been a great step toward the better management of psychiatric patients whether for immediate treatment or making them more amenable to psychotherapy. However, as in every field of medicine, medication must be given with adequate safeguards.

The Use and Abuse of Tranquilizing Drugs*

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For years, the only medications which physicians had at their disposal for the treatment of psychiatric and psychosomatic disorders were the opiates or the barbiturates. In recent years the so-called tranquilizing drugs have become an important part of any physician's therapeutic armamentarium. It is impossible, of course, to go into a discussion of the individual drugs—their dosages, side effects, indications and contraindications in a presentation of this kind because of the number of compounds presently available. It is therefore important that we consider more general matters and consider later a few pertinent facts about some of the more important drugs.

There has been a phenomenal growth of these preparations in the last few years. Major and minor pharmaceutical manufacturers have recognized their importance both from a therapeutic and economic standpoint. As an example, a recent advertisement in a medical journal stated that 5 million people had been treated with one in particular. We are constantly being bombarded with claims and counter-claims from detail men and through the mail about the attributes of one or another of these drugs. Is it not understandable that we are asking ourselves, "which one," "how much," "when," etc.?

In prescribing drugs for emotionally disturbed patients, the physician must know certain things and must keep certain other things in mind. He first must know the pharmacologic effects of the medication, and he must next know the psychologic reactions of the patient. I do not mean to insinuate that he has to know all of the biochemical formulas or background, but he should understand something of the pharmacologic actions of the drug. Particularly, he should know what side effects have been reported and how frequently they have been reported. He must know what are the early signs of toxicity and the treatment of toxicity and side effects. We are all familiar with the early experiences with the reserpine derivatives which at times precipitated a depression and suicide. This has happened with others also. In addition to understanding the pharmacology of the drug, one must know his patient well. He must evaluate the patient's personality and his illness and evaluate the amount of anxiety present. One must be particularly careful, for example, in utilizing tranquilizing drugs in the treatment of alcoholic patients unless under carefully controlled conditions. As you know, these individuals will become intoxicated on drugs as well as on alcohol. They are very valuable when properly controlled but dangerous when not controlled, if used in the treatment of the alcoholic patient.

Uses of Tranquilizers

The chief indication for the use of tranquilizing drugs are the symptoms generally

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associated with psychomotor tension and anxiety, and in the treatment of the psychotic or acutely disturbed patient. The anxiety symptoms are tension headaches and backaches, restlessness, irritability, fatigue, nervousness, difficulty in thinking and concentrating, and insomnia. The psychotic patient shows the classical "A's" of this group of disorders—agitation, aggression and anxiety. At our present level of experience with drugs, none presently available give good results in patients suffering from obsessive-compulsive states, phobic and conversion or hysterical reactions, and hypochondriacal reactions. The reason for the poor results with such patients is not well understood other than that some of these have the presence of secondary gain to complicate the picture. Anxiety that is free-floating or not fixed to any particular organ and the type that gradually builds up, responds best to drug therapy.

We must also continually remind ourselves that the purpose of this group of medications is not to completely eliminate anxiety but rather to reduce it from a pathologic level to a level that is more easily controlled. If one utilizes a drug that is too potent for a particular patient, uses too high a dose, or gives it for too long a period the purpose of therapy will be defeated; on the other hand the opposite is equally true. That is, if one does not use a drug that is potent enough, or a dosage that is too low, or does not give it for a long enough period of time, the results will be equally disappointing. I should like at this point to caution against an unwarranted fear of numbers. Many physicians with whom I have talked say they are afraid to give a patient 400 to 1000 mg. of a drug a day, but they will give 1-2 mg. a day of another one that is much more potent and more likely to cause side effects purely because they are afraid of the numbers of milligrams. Unfortunately, the pharmaceutical manufacturers have recognized this. Have you noticed that the tranquilizing drugs that have been more recently released are in fewer milligrams than the earlier ones? The most marked side effects I have ever had with a drug was when I was giving a dose of 0.25 mg. twice a day, and this particular patient had taken only four doses.

However, as has been stated, too high a dose will result in a vegetable for a patient or may drop the patient to a lower level of mood than he ordinarily experiences when he is well and thus precipitate a depressive reaction. You will remember the process of titration in freshman chemistry. One must learn to titrate tranquilizing drugs against the patients' symptoms—particularly anxiety—and try to attain a resulting normality of mood in a particular patient, and what might be normal for one patient may not be normal for another.

One must realize that the object of drug therapy is not to tranquilize but to normalize. Tranquilizers is an unfortunate term. Tranquilizing means "calm, undisturbed, unruffled, placid, serene and peace of mind." But this state like Utopia is never attained by normal people. In addition, such a state, were it attainable, would be dangerous. It is desirable to help a patient be calm so he neither underestimates his danger nor loses his power to combat it. He must remain in complete command of his faculties. He should not be detached from his responsibilities or his obligations. Anxiety is normal and desirable in certain situations, as is fear, for with the stimulation of these two emotions one is able to respond quickly and adequately to a threatening situation.

Tranquilizing drugs are not curative but offer only symptomatic relief. Just as Dilantin does not cure epilepsy, nor insulin diabetes, so the tranquilizing drugs do not cure the symptoms of anxiety. But they may, when properly used, offer symptomatic relief. Like the treatment of pain, however, one must not forget that the cure lies with the treatment of the cause of the anxiety. Continually treating pain without treating the cause of the pain may be dangerous and continually treating anxiety without treating the cause may be equally dangerous. Severe protracted anxiety indicates the presence of illness of the personality and the cause must be uncovered and handled.

It was mentioned at the beginning of this presentation that the entire field of tranquilizing drugs could not be covered, but a few of the more useful ones would be mentioned.

Ataractics

In my experience, chlorpromazine (Thorazine) is still one of the most beneficial and useful drugs, particularly in the hospital patient who is disturbed and hyperactive. In lower doses it is useful in the psychoneurotic patient. One gets good results if the preparation is given at first by the intramuscular route for 2 to 4 days and then changes to the oral route. Doses of 50 to 100 mg. every 4 to 6 hours will be sufficient to control most patients. The blood pressure should be checked prior to each dose, and if below 100 systolic, the subsequent dose should be omitted. When changing to the oral route, it will require one-half more to double the intramuscular dose to get the same results. Complications include, hypotonia with weakness and fatigue, and postural hypotension; the patients should be cautioned about these—ataxia, dermatitis, particularly on exposure to the sun, jaundice and agranulocytosis. Of utmost importance is a gradual reduction in the dose as soon as possible. If one reduces it too rapidly patients may develop convulsions, and also, if in the future one must use the drug again, it may not be effective. Others of the phenothiazine family include perphenazine (Trilafon), phenothiazine HCl (Sparine), triflupromazine (Vesprin), mepazine (Pacatal) and prochlorperazine (Compazine). Some of these have the advantage of being for intravenous use so rapid results are obtained. I should like to call particularly attention to trifluoperazine (Stelazine), one of the newer phenothiazine drugs. This preparation is a long-acting drug and can be given only every 12 hours. It is particularly useful in patients with anxiety who desires to stay on the job for it causes little sedative side effect. I have utilized this in women working in hosiery mills who are doing very exacting work (where sedation would reduce production) with excellent results. It is very potent but also most effective. It is also effective in agitated senile patients with organic brain disease and will make them more comfortable.

The more potent phenothiazines produce neurologic manifestations and side effects at lower milligram doses than their less

potent counterparts. Milligram for milligram, however, the more potent compounds are correspondingly more effective and, as has been mentioned, require smaller doses; i.e., the more potent phenothiazines often, but not always, prove therapeutically effective at doses that do not produce neurologic effects while the less potent compounds frequently require high doses that might produce these effects. Thus, the more potent the phenothiazine compounds, the lower the incidence of neurologic effects at therapeutically equieffective doses. To mention the more commonly known preparation, Trilafon may show neurologic effects at doses of over 40 mg. a day, Compazine at doses above 60 mg. a day, Thorazine at 300 mg., Pacatal and Sparine at 600 mg. At the other extreme Stelazine may show side effects at 6 mg. a day doses and fluphenazine dihydrochloride (Prolixin) at only 1 or 2 mg.

If many patients who are treated on an outpatient basis, a high degree of sedation may constitute an undesirable feature particularly in individuals who operate machinery, motor vehicles or the like. Studies have shown that the greatest degree of sedation is usually caused by Thorazine followed by Pacatal, Sparine, Compazine, Trilifon and Stelazine, in that order. Sedation may be a desirable side effect in other patients, of course.

Azacyclonol (Frenquel) is a very useful drug in selected patients. It will, many times, block hallucinations and delusions. It is particularly effective in patients with delirium tremens and can be given intravenously initially, followed by oral doses. One hundred milligrams 3 to 4 times a day is suggested. It is also effective in some patients with toxic states such as bromidism or postoperative hallucinations. It can be utilized with other tranquilizers without difficulty. It is effective at times in blocking the delusions and hallucinations of schizophrenia.

There are numerous other drugs that are not in the phenothiazine group that are effective in various clinical syndromes. Meprobamate is still the most effective in my experience, particularly in tension states because of its muscular relaxing properties. Oxanamide (Quiactin) is an effective drug in patients with neurodermatosis and in

patients who are in need of a milder medication. Unfortunately, it is not used as much nor is it as well known, but it is an effective preparation in certain patients. Striatran is to be released soon and is very effective in patients with moderate free floating anxiety who are not disturbed or psychotic. It is similar to meprobamate but superior in some patients.

While not strictly classified as a tranquilizing drug, there is a new preparation soon to be released that I feel warrants mention. I am sure that all of us recognize the growing importance of geriatric medicine. By 1970, there will be between 15 and 20 million people in the U. S. over the age of 65. We in medicine have been able to help them live longer, though I seriously doubt if we have been able to help them to live better. Diseases involving organic brain deterioration are becoming more common, and the treatment of senile deterioration or senile dementia is becoming a therapeutic challenge. There have been many preparations tried recently in the treatment and management of these patients. Barbiturates are generally inadvisable because of their depressant effect on the central nervous system and particularly the respiratory center. Some of the tranquilizers are helpful in managing the agitation and restlessness frequently present—particularly the milder ones such as meprobamate (Equanil) phenaglycodol (Ultran), hydroxyzine (Atarax), oxanamide (Quiactin), etc. Nicotinic acid and pentamethylentetrazol (Metrazol) preparation are beneficial in the treatment of many patients, but some object to the flushing which occurs and complain of it bitterly. The author is presently engaged in the clinical study of a new analeptic drug that seems to hold great promise for this group of patients. An analeptic drug, as I am sure you know, is one that aids the central nervous system in better utilizing whatever oxygen is available to it. Where hardening and narrowing of the lumen of the arteries supplying the brain occurs, this is an important agent. Warner-Lambert Company will soon release a new preparation of this type that has been most effective. I have utilized it to date in about 40 patients both male and female who suffer from organic brain deterioration due to se-

nility or cerebral arteriosclerosis. Improvement has occurred in over 30 of this group. The majority of these patients were hospitalized in a local hospital, required a great deal of custodial and nursing care, were unable to dress or feed themselves, were untidy and at times aggressive. At other times they were completely withdrawn. We have been able to move them to an old folks home where they are able to take care of themselves, participate in group activities and where their behavior is more socially acceptable. I hope that with further studies by other investigators, these initial impressions will be continued.

I recognize that I have omitted many excellent preparations, but I have tried to give a few that should be useful to the general practitioner. The omissions were not due to the fact that I feel others are valueless.

A final word about the general use of tranquilizing drugs. Do not forget the usefulness of old friends such as the barbiturates, paraldehyde and chloralhydrate. They are still excellent and effective drugs when judiciously used.

Tranquilizers are effective drugs when carefully controlled but dangerous when not. Many locked doors in psychiatric hospitals have been opened and many patients returned to relatively normal useful and productive lives and to their families and friends.

The field of psychopharmacology is rapidly changing. Ten years from now we will marvel at our stupidity and lack of insight. We can recall new treatments that at first seemed earthshaking and later fell into disrepute. I would caution you against being overenthusiastic as well as being too pessimistic. Keep an open mind to new developments, but do not turn your back on old stand-bys. Let me quote from an article I recently discovered. "In a group of 85 patients treated, 50 per cent showed decided improvement and 75 per cent showed some. Patients who had been wantonly destructive became more placid and clean; those subject to violent outbursts became better adjusted with their environment and their activities were more easily directed into useful channels following treatment. Patients requiring tube feeding took food vol-

untarily after two or three days. The most lasting improvement was found in those cases previously regarded as having an unfavorable prognosis.

When one considers the changes in the environment of the patients treated—lessened disorder, confusion, and untidiness and conservation of energy for the nurses and other employees—the results are of still greater value. There is marked reduction in waste of clothing and bedding through tearing and soiling, fewer articles have to be repaired and laundered, and fewer nurses are required to care for disturbed patients. One nurse explained, “Before these patients were treated, I had to struggle with them every morning to get them bathed and dressed. Fights were frequent occurrences.

Now I can supervise the bathing of many of them alone.”

“Failures occur from the fact that when improvement does not take place in a few days, the drug is *stopped*, when it should be *continued*.”*

I have also omitted some of the most effective tranquilizers from this discussion. But I feel that in this sovereign state of Jack Daniels, you are more familiar with its properties, side effects and dosage than am I. The only difficulty with this one is that so many patients overdose themselves and become so tranquil they cannot move.

*This excerpt was written by W. W. Wright in 1926. It was entitled, “Results Obtained from the Intensive Use of Bromides in Functional Psychosis” and was published in the *American Journal of Psychiatry*.

The Challenge of Medical-Care Insurance, C. Marshall Lee, Jr., M.D., Assistant Medical Director, John Hancock Mutual Life Insurance Company, New England J. of Med. 262:332, 1960.

“A curious paradox of some contemporary social philosophy is the idea that man should spend what he earns for his pleasures rather than for what he needs. It is appropriate, so this reasoning goes, that he should buy a television set, a vacation in Florida or an outboard motor boat, because these are cardinal rights. But for something that he really needs, such as his life or his health, or the life of his child, someone else should pay. This may be the Government, his employer, his union, his great-aunt or anyone else who can be cajoled or coerced into paying the price for him. If no one else will pay for it, the doctor should serve him for nothing.”

This observation by Dr. C. Marshall Lee, Jr., raises a question of crucial importance not only to the medical economy but to the whole pattern of our American society.

For, as Dr. Lee puts it, the attitude he describes “may be acceptable for the child of an indulgent

parent, but it is not appropriate for a free man in a free society.”

What can the doctor do to counteract this philosophy and to forestall the socialization of medicine which may be its ultimate product?

First, the doctor should learn all he can learn about our voluntary medical prepayment programs. Physicians should recognize that, in Dr. Lee's words, “Far from being the meddlesome ‘third party’ for which they have an uneasy fear, (the prepayment program) stands with them in the common effort to preserve a cherished concept of freedom.”

Secondly, the doctor—and only he—can make these programs operate to the satisfaction of the patient. Only he can see to it that the subscriber gets full value for the premium dollar he has invested in our voluntary medical care program.

Finally, the medical profession's own sponsored Blue Shield Plans offer the American doctor an opportunity not only to strengthen and confirm his patient's confidence in our traditional way of practicing medicine, but also to participate actively in guiding the destiny of our medical prepayment program in the days ahead.

The introduction of alpha-chymotrypsin into cataract surgery in recent years provided for greater ease in the operation. It seems that certain late complications may be anticipated. The authors set forth criteria for the more rigid selection of cases for the use of this drug at the time of operation.

ALPHA-CHYMOTRYPSIN IN CATARACT SURGERY. A Follow-up Report*

PHILIP MERIWETHER LEWIS, M.D., A. CHEIJ, M.D., JOHN HARDIMAN, M.D. and
CLAUDE OGLESBY, M.D.† Memphis, Tenn.

One year ago we presented and published a paper on this subject, based on the pooled experiences for a period of three months of the attending ophthalmologists and residents composing the staffs of the Department of Ophthalmology of the University of Tennessee and The Memphis Eye and Ear Hospital.¹ The first 80 cases in which alpha-chymotrypsin was used were analyzed. Since that time an additional 342 eyes have undergone cataract extraction with the use of ACT. Thus the total number of cataract extractions using ACT was 423 in the year 1959. The operations were performed by the attending and resident staffs of the Memphis Eye and Ear Hospital and the John Gaston Hospital.

The purpose of this paper is to report:

- (1) The nature and incidence of complications occurring at operation for the entire series.
- (2) The complications occurring early, during the first four postoperative weeks.
- (3) The late complications and final visual results.
- (4) A comparative analysis of complications and end results in 71 cases in which ACT was used and 71 cases without its use by the same surgeon and with the same technic.

For various reasons it was found impractical, if not impossible, to obtain an accurate follow-up report in many of these cases. In the analysis of the post-operative complications and visual results, no cases are in-

cluded except those in which, at least three months after operation, there has been a fairly complete postoperative study consisting of an external examination with lens and loupe, slit-lamp microscopy of the cornea, iris and anterior vitreous, refraction with an accurate determination of vision and an ophthalmoscopic examination. One hundred case records were studied in this manner and the results are reported.

Operative Complications

Capsule Rupture: Rupture of the capsule occurred in 39 instances of the total 423 extractions, an incidence of 9 per cent. In a few of these cases the capsule was lacerated while enlarging the wound or in doing the iridectomy. Occasionally it was opened with the canula while injecting the ACT. In the others it was ruptured during manipulations with the forceps or erisophake.

In most of these cases it was possible to remove the capsule completely with forceps, but in doing this there was a loss of a small amount of vitreous several times.

Vitreous Loss: This occurred in 28 eyes or in 6.6% of cases. Four of these were in patients below the age of 16 years, one of whom was only 3 years old. There was a definite adhesion of the hyaloid to the posterior lens capsule in these children. In many of the cases in which vitreous was lost, it was thought that the enzyme itself was not responsible. However, it seems that it occurred more frequently than usual in this series and it is probable that ACT was responsible or a contributory factor in some cases. Certainly it was responsible for the intracapsular extractions being attempted in children.

In the entire series of 423 operations there

*Read before the Meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 12, 1960, Nashville, Tenn.

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were no very serious complications at the time of operation, such as the lens falling back into the vitreous, massive loss of vitreous or expulsive hemorrhage. (Table 1.)

Table 1

OPERATIVE COMPLICATIONS

	Number of Cases	Per Cent
Capsule Rupture	39	9
Vitreous Loss	28	6.6
Lens Dislocation into Vitreous	0	0
Expulsive Hemorrhage	0	0

Postoperative Complications

Early Complications. These occurred within four weeks after operation. They were: corneal edema, shallow or flat anterior chamber, prolapse of the iris, iritis, hyphema and choroidal detachment. (Tables 2 and 3.)

Table 2

POSTOPERATIVE COMPLICATIONS IN 71 CASES WITH
THE USE OF ALPHA-CHYMOTRYPSIN
(SAME OPERATOR)

Complications	Number of Cases	Per Cent
None	40	56
Striate Keratitis	25	35
Shallow or Flat Anterior Chamber	11	15.4
Iritis	15	21
Hyphema	2	3
Choroidal Detachment	2	3
Corneal Dystrophy or Opacity	2	3
Rupture of Hyaloid	13	18.4
Peripheral Anterior Synechiae	2	3
Retinal Detachment	1	1.4
Macula Degeneration	8	11.2

Table 3

POSTOPERATIVE COMPLICATIONS IN 71 CASES
WITHOUT THE USE OF ALPHA-CHYMOTRYPSIN
(SAME OPERATOR)

Complications	Number of Cases	Per Cent
None	39	55
Striate Keratitis	5	7
Shallow or Flat Anterior Chamber	8	11
Iritis	7	9.8
Hyphema	8	11
Choroidal Detachment	10	14
Corneal Dystrophy or Permanent Opacity	2	3
Rupture of Hyaloid	7	9.8
Peripheral Anterior Synechiae	3	4.2
Retinal Detachment	1	1.4
Macula Degeneration	8	11

(1) *Corneal Edema.* The incidence of corneal edema (striate keratitis), while low during the first 30 extractions, increased as

the series grew until it occurred in more than one third of the cases. In several eyes it persisted for two or more weeks. Fuchs² reported persistent corneal clouding and a wrinkling of Descemet's in many cases. Arrachea³ reported that striate keratitis and prolonged congestion were frequent when ACT was used. Definite increase in clouding occurred in a case of endothelial dystrophy. This was the only case of endothelial dystrophy in which the drug was used. It is believed that ACT should not be used if there is even a suspicion of endothelial disease. This opinion is shared by most observers (Zorab⁴).

(2) *Shallow or Flat Anterior Chamber.* This occurred surprisingly rarely, considering the fact that in many of these cases only two corneo-scleral sutures were used. Of the entire 423 extractions only 11 eyes were recorded as having a shallow or flat anterior chamber while the patient was still in the hospital. It was impossible to determine the incidence thereafter for the entire series. In a total of 71 extractions with ACT done by the senior author, there were 11 cases with shallow or flat anterior chambers (15.4%). In 71 consecutive extractions done by the same surgeon without ACT, there were 8 cases with shallow or flat anterior chambers (11.2%). In 7 cases in which ACT was used the trouble came on rather late, after the patient had left the hospital. It was therefore not seen until the patient returned for observation about 2 weeks after operation. Weekers and associates⁵ reported a late flattening of the anterior chamber in 23.6% of the cases in which ACT was used. Re-suturing the wound was necessary in 3 patients because of an obvious leak and in one because of a prolapsed iris. Following this the chamber reformed and no further trouble was encountered. Cauterization of the incision with trichloroacetic acid, bandaging and the administration of Diamox were all used in the other cases. Restoration of the anterior chamber took place in from one to five days in all of them. In a series of 53 cases, Casero⁶ had 3 flat anterior chambers. Anterior synechiae resulted in 2 patients. The increased incidence of shallow or flat anterior chambers when ACT was used suggests that it

retards wound healing in some cases. There were 3 known cases of iris prolapse.

(3) *Iritis*. It was impossible to determine the number of cases of iritis for the entire series. In 100 patients in whom the follow-up was adequate, iritis occurred in 19 eyes. This incidence is quite similar to that reported by Callahan.⁷ In the 71 instances operated upon with ACT by the senior author, iritis occurred in 15 cases. Some of these were fairly severe but most of them responded quickly to treatment with mydriatics and local steroids. Three patients also required systemic steroids. In most cases the iritis came on after the patient left the hospital, usually about the eighth to twelfth postoperative day. As both the incidence and the severity were greater than had been customary in extractions done without ACT, it is now believed that the enzyme causes an increase in both the frequency and severity of late postoperative iritis.

(4) *Hyphema*. There were only 7 cases recorded in the entire series of 423 extractions, an incidence of 1.65 per cent. In the senior author's series of 71 cases in which ACT was used, there were only 2 hyphemas. In 71 cases without the use of ACT there were 8 hyphemas. The decreased incidence when ACT was used may be of no significance, but it indicates that the enzyme does not cause hyphema.

(5) *Choroidal Detachment*. No case of choroidal detachment was seen among the first 80 cases reported last year. It was impossible to obtain the incidence in the remainder of the series. In 71 cases in which ACT was used by the senior author, there were only 2 choroidal detachments. In 71 consecutive cases without the use of ACT there were 10 choroidal detachments. It was thought that the decreased incidence of this complication when the enzyme was used was due to the fact that much less pressure on the eyeball had been necessary. Spontaneous reattachment occurred in all cases.

Late Postoperative Complications

(1) *Changes in Hyaloid and Vitreous*. Bulging forward of the hyaloid through the pupil was very common, being present in more than three-fourths of all cases ex-

amined. Rupture of the hyaloid was not very frequent. It is difficult to state definitely whether these changes in the faces of the vitreous occurred more frequently following the use of ACT. However, it is thought at present that there was an increased incidence of the above changes when the enzyme was used.

(2) *Corneal dystrophy or permanent opacity*. There was one case of endothelial dystrophy definitely made worse by ACT and one permanent corneal opacity due to prolonged contact of the hyaloid with the cornea.

(3) *Pupillary block and/or secondary glaucoma*. There was no known case of pupillary block and only one case of secondary glaucoma among 100 cases.

(4) *Retinal detachment*. One known patient developed a separation of the retina. This was in a 59 year old woman 12 weeks after operation. Vitreous had been lost at operation due to an adhesion of the hyaloid to the posterior lens capsule. The detachment occurred almost immediately after an automobile accident in which she received a severe jar. Corrected vision had been normal two months after the extraction. It seems unlikely that ACT was responsible for this complication.

(5) *Macula degeneration*. Decreased vision due to senile degenerative changes in the macula occurred in about 11% of the cases in which ACT was used. The percentage was the same in a similar series operated upon without the drug. All were in elderly patients.

Comparison of Cases Done With and Without Alpha-Chymotrypsin.

Seventy-one cataract extractions done with the use of ACT were compared with a like number done without it. All of these operations were performed by the same surgeon. The cases were analyzed with regard to postoperative complications, final vision and the amount of astigmatism. The total number of complications in 71 eyes operated upon with ACT was 83, as compared with 79 complications in cases treated without it. Fifty-six per cent of those in which ACT was used had no complications; 55% of those operated upon without ACT had no complications.

Table 4
VISUAL RESULTS WITH ALPHA-CHYMOTRYPSIN

<i>Vision</i>	<i>Number of Cases</i>	<i>Per Cent</i>	<i>Cause of Visual Reduction</i>
20/30 or better	51	72	
20/40-20/50	11	15.4	corneal dystrophy 1 vitreous rupture 4 macula degeneration 4 retinal detachment 1 unknown 1
20/60-20/100	5	7	corneal opacity 1 vitreous rupture 2 macula degeneration 3 retinal detachment 1 glaucoma 2 optic nerve atrophy 1
20/100-20/200	2	2.8	glaucoma 1 vitreous degeneration 1 macula degeneration 1
Less than 20/200	2	2.8	glaucomatous atrophy 1 central choroiditis 1
Total	71	100	

Table 5
VISUAL RESULTS WITHOUT ALPHA-CHYMOTRYPSIN

<i>Vision</i>	<i>Number of Cases</i>	<i>Per Cent</i>	<i>Cause of Visual Reduction</i>
20/30 or better	50	71	
20/40-20/50	12	17	diabetic retinopathy 2 macula degeneration 4
20/60-20/100	3	4	recurrent primary glaucoma 2 glaucomatous atrophy 1 macula degeneration 2
20/100-20/200	4	5.2	vitreous adhesion to cornea 1 macula degeneration 3 uveitis 2 old corneal opacities 2
Less than 20/200	2	2.8	glaucomatous atrophy 1 macula degeneration 1
Total	71	100	

In tables 2 and 3 it may be seen that striate keratitis, iritis and flat anterior chambers were definitely more frequent when ACT was used. Tables 4 and 5 show that the final visual results were almost identical in the two series. The causes of markedly reduced vision are listed. Tables 6 and 7 show the final astigmatic measurements. No appreciable differences in astigmatism were found in the two groups. Patients having had three or more corneoscleral sutures were found to have smaller amounts of astigmatism. The final visual results were quite similar in both series.

Table 6
AMOUNT OF ASTIGMATISM WITH
ALPHA-CHYMOTRYPSIN

<i>Amount in Diopters</i>	<i>Number of Cases</i>	<i>Per Cent</i>
0-1	44	62
1-1.50	16	22.4
1.50-2	6	8.5
2 or more	5	7.1
Total	71	100

Table 7
AMOUNT OF ASTIGMATISM WITHOUT
ALPHA-CHYMOTRYPSIN

<i>Amount in Diopters</i>	<i>Number of Cases</i>	<i>Per Cent</i>
0-1	40	61
1-1.50	20	30.5
1.50-2	5	7
2 or more	1	1.5
Total	66	100

Summary

In 423 cataract extractions done with the use of alpha-chymotrypsin by the attending and resident staffs of The Memphis Eye and Ear Hospital and The John Gaston Hospital, there were no disastrous complications at the time of operation. Removal in capsule was possible in 91% of cases. In the 9% in which rupture occurred, complete removal of the remaining capsule and cortex was usually possible.

There was a loss of vitreous in 28 eyes or in 6.6 per cent. There was no instance of massive loss of vitreous, no case in which

the lens was lost in the vitreous and no case of expulsive hemorrhage.

It was possible to analyze the postoperative complications in 100 cases. Striate keratitis, shallow or flat anterior chambers and iritis were more frequent. The incidence of hyphema was not increased. Choroidal detachment was less frequent.

A comparison is given of the complications and end results in 71 cases in which alpha-chymotrypsin was used and 71 cases without its use.

Conclusions

Alpha-chymotrypsin makes the intracapsular extraction of cataracts possible in a high percentage of cases. With reasonable care and precautions the occurrence of serious complications at the time of operation seems unlikely in adults. It is believed that ACT should not be used in any patient under 21 years of age.

Striate keratitis, shallow or flat anterior chamber and iritis are increased in fre-

quency. ACT should never be used in a patient having endothelial dystrophy.

It is thought but not definitely established that the incidence of changes in the anterior vitreous is increased.

The final visual results and the amount of astigmatism are practically the same in cases in which alpha-chymotrypsin was used and in those in which it was not used.

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The Course of Mitral Stenosis without Surgery: Ten-and Twenty-Year Perspectives. John C. Rowe, Edward F. Bland, Howard B. Sprague and Paul D. White. *Am. of Int. Med.* 52:741, 1960.

Ten year survival figures for surgically treated mitral stenosis are now available, but little information has been recorded regarding the course of the medically treated patients in the presurgical era. These authors report on the fate of 250 patients with mitral stenosis who were followed until death or for a minimum of 10 years; the course of 115 of the 250 patients were followed for 20 years.

The patients were divided into four grades according to severity as follows: 1. Auscultatory signs of mitral stenosis without symptoms and with normal rhythm, 52%; 2. Mild symptoms with normal rhythm, or atrial fibrillation, with or without symptoms, 37%; 3. Moderate to moderately severe symptoms, or a major complication, 10%; 4. Chronic heart failure, 1%.

Survival: Except for those in Grade 1, the highest mortality occurred in the first 5 years. In Grade 1, 84% lived 10 years; in Grade 2, 42%; in Grade 3, 15%. In 10 years 40% of the patients had died, 20% progressed to a more severe category, and 40% remained the same.

The causes of death in the 10 year mortality group were as follows: congestive failure, 61%; systemic embolus, 19%; pulmonary embolus, 9%; bacterial endocarditis, 4.5%; and unrelated disease, 6.3%.

In 20 years of those originally classified as: Grade 1, 62% were dead; Grade 2, 92% were dead; Grade 3, 92% were dead; and all patients, 79% were dead.

The survival rate of this group was compared with the series of Grant (*Heart* 6:275, 1933) and Oleson (*Ejnar Munksgaard, Copenhagen*, 1955). Grant's experience was similar to the present authors. In Oleson's series the 10 year survival rate was only 25%, probably influenced adversely by the more advanced age of his subjects and severity of the disease. The series of Harken, et al. (*Circulation* 15:924, 1957) gives a very favorable 7 year survival curve of the surgically treated cases contrasted with the 3 series of medically treated cases. The long term benefits of mitral valvulotomy are evident with a 7 year survival rate of better than 95% as contrasted with 7 year survival rate of the authors series of medically treated cases of approximately 45%. The greatest mortality of the surgically treated cases occurred in the first year after surgery. (Abstracted for the Middle Tennessee Heart Association by James N. Thomasson, M.D., Nashville.)

CASE REPORT

Surgery and Light Coagulation in the Treatment of Retinal Detachment

William F. Murrah, Jr., M.D.,* Memphis, Tenn.

Though this case report is of a disease or condition, retinal detachment, which is not unusual. Also, the eventual treatment was by a not entirely new method, since there are at least several places in this country where this method or a similar one has been used. However, it is felt that in this immediate vicinity the method may be new; at least it has not been reported.

Mr. F. P., a 71 year old white man was seen in our office in July, 1956. His complaint, of 7 weeks duration, was that he had been seeing "lightning flashes" at night and dark blotches in the vision of his left eye. Vision in that eye was correctable to 20/20. The pertinent findings were the presence of a peripheral triangular retinal operculum or retinal tear at 2-2:30 o'clock, with an area of retinal elevation of 1 D around the site of the tear as compared to the remainder of the fundus periphery. The right eye was sound and healthy with vision correctable to 20/20 and Jaeger 1.

Three days later, the first week of August, 1956, Dr. Rychener performed a scleral diathermy operation on the involved eye, ringing the tear with Gradle point surface diathermy. The patient was discharged from the hospital 2 weeks postoperative with the retina flat and in place. Normal healing followed with formation of chorioretinal scars encircling the tear area and the retina in place and corrected vision of 20/20. The visual fields, left eye, form and central, showed a scotoma below, mid-periphery, which was consistent with the diathermy scarring above.

Nearly 2 years later, on April 30, 1958, the patient returned to the office complaining of a cloudiness in the vision of his left eye. Vision was 20/50 at that time, but the retina appeared to be in place and normal except for the old diathermy scars. One week following this, however, his vision had been further reduced to 20/200 and a flat retinal detachment of the upper outer quadrant was present. The macula was off and elevated 2 D; greatest elevation of the detachment was 5 D. No hole or tear could be found. During the next several weeks the detachment became bulbous over the macula. Scleral resection and vitreous implant was advised but vitreous was unavailable and so a regimen of bed rest and pinholes were prescribed.

The patient was not seen until 4 months later, October, 1958, at which time the detachment was still present but had settled back considerably.

He returned again in September, 1959, and then again on January 12, 1960. The detachment was still present, but now involved the temporal and inferior temporal retina extending from the old scars, up and out, at 2 o'clock, downward to 6:30 o'clock with the macula detached and the greatest elevation in the 4-5 o'clock mid-peripheral area. Elevation around the equator was only slight. No hole was seen but it was felt a very small leak or tear must be present in the 2-3 o'clock position in the far periphery. The patient was advised that surgery offered a good chance of sealing off the suspected hole and re-attaching the retina.

The following surgical procedure to correct this retinal detachment, present nearly two years, was done on January 12, 1960. Following a temporal conjunctival incision and detachment of the lateral rectus, a sclerotomy, parallel to the limbus and 15 mm. behind the limbus was made from the superior rectus down to the inferior rectus. Radical sclerotomies were done at each end, the anterior ends extending to the ora, forming a "goal post" sclerotomy as done by Dr. Graham Clark. The depth of the sclerotomy was down to the choroid and the edges of the sclera were dissected anteriorly and posteriorly so that an exposed choroidal bed 7-9 mm. wide extended from 12-6 o'clock. Diathermy with the cutting current of the Thermosector was applied to this entire choroidal bed. The sclerotomy was closed with interrupted and mattress type sutures of 6 "o" silk so that some shortening would be obtained.

This type of procedure produced a moderate scleral and choroidal buckle. Thus from the old scars above, downward to 6 o'clock a broad buckle, fairly wide, was produced with the retina showing good reaction generally, but in the 3:30 position and at either end it was felt that further retinal diathermy would be desirable so 8 days postoperative, these retinal areas were treated with the Meyer-Schwickerath Light Coagulator, applications being several at 12:30 o'clock, the area of retina between the old scars and the fresh retinal diathermy reaction and in the 3-4 o'clock area, along the anterior edge of the buckle, and in the 6-7 o'clock area, nasal to the inferior end of the buckle.

Six weeks postoperative the retina was attached along and over entire retinal diathermy area and, at the sites of helio-cautery which have shown optimum pigmentation reaction. A small central area of unattached retina with about 2 D. elevation persists. Vision left eye is correctable to 20/200 and Jaeger 12. Subjectively the patient's central vision and visual fields are improved.

Comment. It is believed that the surgical treatment and combined with helio-cautery used in treating this retinal detachment has improved the condition present, and has sealed off the unfound tear or break so that further progression of the detachment will not occur.

*Read before Memphis Society of Ophthalmology and Otolaryngology, March 8, 1960, Memphis, Tenn.

CASE REPORT

Lymphosarcoma of the Small Intestine in a Child

Jack Greenfield, M.D., Memphis, Tenn.

Lymphosarcoma of the small intestine is uncommon in children. Through 1959, 38 cases were reported in the literature.¹ The case reported in a child, who has survived four and one-half years, follows.

M. W. This 5½ year old white boy was admitted to the LeBonheur Children's Hospital on December 7, 1955, with a history of recurrent midabdominal pain for 6 weeks, and nausea and vomiting for 3 days. He had had a daily bowel evacuation containing no blood.

When seen in consultation the child's temperature, pulse and respiration were normal. The abdomen was obese. There was some tenderness to the right of the umbilicus with minimal rigidity. The right lower quadrant felt empty (Dances' sign). The rectal examination was negative. There was no lymphadenopathy. Soon after examination he passed flatus. The only significant laboratory finding was a WBC. of 16,300 with 90% polys. The hemogram was normal. A barium enema was requested and showed an ileocecal intussusception.

At operation, after reduction of the intussusception, a tumor mass 2.5 cm. in diameter was seen to involve the wall of the ileum about 6 cm. from the ileocecal valve. There was several enlarged lymph nodes in the mesentery, some of which were 1.5 cm. in size. A frozen section from the tumor was reported as lymphosarcoma. The distal ileum and half of the right colon were resected and an end-to-end ileocolostomy performed. The final pathological study showed the tumor to be of the small cell lymphocytic type of lymphosarcoma. None of the lymph nodes removed with the resected specimen contained any tumor.

The postoperative course was uneventful. After the sutures were removed he was referred for roentgen therapy. He was given 1100 r to two ports, anterior and posterior, over the right lower quadrant of the abdomen from December 29, 1955 to Jan. 5, 1956, by Dr. H. E. Mabry of the X-ray Department.

Since then he has grown normally and weighs 110 pounds. Physical examination, films of the chest, gastrointestinal series and barium enema study show no evidence of recurrence at the time of this writing.

Discussion

The reported cases of lymphosarcoma of the small intestine in children covered ages from newborn to 13 years of age. Usually the tumors are of the small cell type and occur mainly in the ileum. Intussusception was the most common diagnosis made in the reported cases.²⁻⁴ These cases may present also with a mass, signs of intestinal obstruction or may simulate appendicitis.

The treatment is surgical. Most authors recommend irradiation postoperatively.^{3,4,5} The prognosis in children is poor. About half succumb in less than one year, less than a third survive 2 years. About 17% survive 5 years⁵; survivals for as long as 9 years have been reported in children. In adults the results are much better. Some adults have survived for over 20 years, and one as long as 29 years.^{1,4,5} Adjunctive chemotherapy with such agents as nitrogen mustard or TEM has not produced any improvement in results.³

Conclusion

A case of small-cell lymphosarcoma of the ileum in a five and one-half year old boy treated by resection and postoperative roentgen therapy is reported.

At the time of writing this patient has survived four and one-half years.

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Clinical Evaluation of Methdilazine Hydrochloride, a New Antihistamine, Using Double-Blind and Placebo Control†

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Introduction

Numerous histamine antagonists have appeared since the discovery by Halpern¹ of Antergan, the first antihistamine to possess high activity and relatively low toxicity. It has been noted recently by Michelson and Lowell,² in their review on antihistaminic drugs, that in the last several years only a few antihistaminic agents have been synthesized.

Our study, reported herein, had a twofold purpose. Primarily, we are concerned with the clinical evaluation of methdilazine hydrochloride,* a new antihistamine. Methdilazine, a phenothiazine derivative recently synthesized, chemically is 10-(1-methyl-3-pyrrolidylmethyl) phenothiazine hydrochloride. A concomitant purpose was the comparison of the double-blind technic vs. an uncontrolled study in the symptomatic response of allergic rhinitis in children to this new antihistaminic agent.

Pharmacologic Action

Animal studies have included *in vitro* experiments to evaluate the antihistaminic action of methdilazine on isolated guinea pig ileum and trachea.³ *In vivo* studies have included antagonism experiments against intravenous histamine, histamine-aerosol bronchospasm, serotonin-aerosol bronchospasm, and anaphylaxis in the guinea pig. The findings in these classical laboratory antihistaminic tests have indicated that the ability of methdilazine to block histamine is approximately equal to that of chlorphenamine, two to five times that of tripeleminamine or promethazine, and about one hundred times that of diphenhydramine. The ability of methdilazine to antagonize histamine toxicity in sensitized mice, and to antagonize histamine vasode-

pression and bronchoconstriction in dogs has also been studied. In the experiments on protecting sensitized mice from histamine toxicity, methdilazine was about five times as effective as chlorphenamine. Also, methdilazine was three to five times as effective as tripeleminamine in blocking histamine producing vasodepression in dogs.

Methdilazine is rapidly and almost completely absorbed from the gastrointestinal tract, and very rapidly cleared from the blood stream.⁴ The duration of action persists as long as 8 to 12 hours after a single oral dose of 4 mg./Kg. This has been demonstrated by repeated exposure of animals to lethal doses of histamine. Methdilazine has a slow onset of action averaging from an hour to an hour-and-a-half after the initial dose. In regard to comparison of methdilazine to chlorphenamine, it was found that they both were equally potent in blocking the lethal effect of intravenously administered histamine. However, the duration of action of methdilazine is longer than that of chlorphenamine.

Chronic toxicity studies in rats, over a 9 month period, have revealed no deaths attributable to drug action in daily oral doses at levels of 19 mg./kg., or below.⁴ No harmful effects or physiologic changes occurred in dogs given daily oral doses of 1 to 3 mg./kg. over a 5 month period.

In the course of therapeutic trials tests were made with prolonged administration of doses exceeding therapeutic levels.⁴ Daily doses as high as 125 mg. have been administered to adults with no untoward effects other than drowsiness. One group of 23 adults were given methdilazine 50 to 75 mg. daily for 5 to 6 weeks with no evidence of hematologic or hepatic toxicity. Another group of 10 patients received 24 to 36 mg. daily for 8 weeks. No significant changes in mental behavior, heart rate, blood pressure, respiration, body temperature, peripheral blood count, urinalysis, blood urea nitrogen, or alkaline phosphatase were attributed to the drug.

Methods

Because of our interest in comparing the results of a double-blind study vs. an uncontrolled study, our clinical evaluation was devised in two parts.

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*Kindly furnished as Tacedryl by Mead Johnson and Co., Evansville, Ind.

For the first part of the study, 47 children were selected from the Pediatric Allergy Clinic of the City of Memphis Hospitals and from private practice. The ages varied from 4 to 15 years, with an average 7.4 years. All of the children suffered from allergic rhinitis. Diagnosis was established by evaluating the clinical history, the appearance of the nasal mucosa, obtaining a nasal smear with over 10% eosinophils and, in most cases, by positive skin tests. A number of the children had a history of associated asthma, but were not admitted to the study if asthma was present during the study period.

All other symptomatic medications were discontinued. However, hyposensitization was not interrupted or changed. The dose of methdilazine was 4 or 8 mg. twice a day for a period of 3 weeks.

In this portion of the study, there was no attempt to conceal the identity of the medication from the patients or physicians evaluating the results. The drug was simply prescribed without any comment as to expected benefit.

All subjects and parents kept a daily check of nasal symptoms, and were examined and questioned by one of us (L.C.) at weekly intervals. The daily chart included space for the evaluation of nasal stuffiness, rhinorrhea, sneezing, coughing, and itching nose. Symptomatic response was estimated by the children and parents as "no improvement," "good," or "excellent."

Routine urinalysis, complete blood count, serum bilirubin, and cephalin flocculation tests were obtained at intervals in many of the children. The check sheets had spaces for side effects and listed drowsiness, nervousness, dizziness, nausea and vomiting, dryness of the mouth, and miscellaneous side effects.

After the first uncontrolled clinical evaluation as outlined above revealed no major toxicity, a double-blind controlled study was undertaken. In this portion of the project, a total of 56 children, between the ages of 4 to 16 years with an average age of 7.8 years, were studied. These children all had allergic rhinitis without a flare-up of asthma at the time of the study. Many who had participated in the uncontrolled study were included in the double-blind study.

The criteria for the diagnosis of allergic rhinitis were the same as in the uncontrolled study. In this portion of the study the course of the children was followed for a period of 4 weeks, being checked at weekly intervals. The same type of check sheets were used. There were four medications, A,B,C,D; in which the contents were unknown to both the patients and physician-observers. Capsule A was methdilazine 4 mg., B was methdilazine, 8 mg., and both C and D were placebos. The appearance of the capsules were identical. Each child admitted to the study received one capsule twice a day for a period of a week. Alternate children were given drugs A,B, C, and D on successive weeks, while the other half were given the four capsules in reverse order for 4 successive weeks.

Results

Part I. Uncontrolled Study.

Of the 47 children followed in the uncontrolled study, it was reported that 27 had an excellent response, 17 a moderate or good response, and only 3 patients were said to have received no benefit. The major side effect noticed was drowsiness. Four children complained of this symptom. In 3 of these children, the complaint was mild and the drug was not discontinued. In one child, the complaint of drowsiness was severe enough to warrant discontinuance of the drug. This patient was a 15 year old boy, who weighed 132 lbs. and who had been on the 4 mg. capsule.

Routine urinalyses and complete blood counts revealed no abnormality. The total serum bilirubin and cephalin flocculation determinations were within normal limits. Liver function tests were performed on 28 of the 47 children in either the second or third week of the study.

Part II. Controlled Study.

After the controlled study was completed, a sealed envelope containing information as to the contents of the coded capsules was opened and the data tabulated. It can be seen from table 1 that on medication A (methdilazine 4 mg.) 38 of the 56 patients (67.8%) derived excellent results, 11 (19.8%) good, and 7 (12.4%) poor results. On medication B (methdilazine 8 mg.) 34 (60.7%) received excellent benefits, 16

Table I

RESULTS OF DOUBLE-BLIND STUDY IN THE
EVALUATION OF METHDILAZINE AS A SYMPTOMATIC
DRUG FOR ALLERGIC RHINITIS

Medication	Number of Children	Excellent	Clinical Response Good	Poor
A (4 mg. methdilazine)	56	38 (67.3%)	11 (19.8%)	7 (12.4%)
B (8 mg. methdilazine)	56	34 (60.7%)	16 (28.6%)	6 (10.7%)
C (Placebo)	56	10 (17.9%)	5 (8.9%)	41 (73.2%)
D (Placebo)	56	8 (14.3%)	5 (8.9%)	43 (76.8%)

(28.6%) good results and 6 (10.7%) poor results. On medication C, the first placebo, 10 (17.9%) indicated excellent results, 5 (8.9%) indicated good results, and 41 (73.2%) received no benefit. On medication D, the second placebo, 8 (14.3%) indicated excellent results, 5 (8.9%) good results and 43 (76.8%) received no benefits.

(second placebo). By using the chi-square technic, the "p" values for both groups were found to be less than 0.001. This indicates that there was less than one chance in 1,000 that the differences in the methdilazine and the placebo groups occurred by chance alone.

Comments

This study establishes the therapeutic efficacy of a new antihistamine, methdilazine, in the symptomatic treatment of allergic rhinitis in children. In the uncontrolled study, 44 of the 47 (94%) children with allergic rhinitis were said to obtain either good or excellent benefits from methdilazine. On the other hand, when a double-blind technic with a placebo was used, 87.6% received effective relief from 4 mg. of the drug twice a day. The effectiveness of 8 mg. twice a day was 89.3 per cent. These results suggest that methdilazine is an antihistamine with a high therapeutic index in the treatment of allergic rhinitis in children. No clinical experience was gained in the treatment of bronchial asthma, since any child who developed a severe flare-up of asthma was eliminated from the study and received bronchodilators and expectorants.

The only side effect of any importance was drowsiness. One child complained of severe drowsiness and the medication was discontinued. In Part I, the uncontrolled study, 4 of 46 children developed some sedative effect. This compares with 5 of 56 children who complained of some sedation in Part II, the controlled series. No significant changes occurred in blood counts, urinalyses, or liver function tests.

In addition to methdilazine's high potency as an antihistaminic agent, acute and chronic toxicity studies in mice, rats, guinea pigs, and dogs have revealed no functional

Table 2

SUMMARY OF THE EFFECTIVENESS AND SIDE EFFECTS
OF METHDILAZINE AS COMPARED TO THE PLACEBO

Medication	Effectiveness	Side Effects
A (4 mg. methdilazine)	87.6%	3 Drowsy 1 Headache
B (8 mg. methdilazine)	89.3%	2 Drowsy 1 Headache
C (Placebo)	26.8%	1 Drowsy 1 Irritable
D (Placebo)	23.2%	None

Table 2 summarizes total effectiveness of the various medications. Effectiveness is defined as an excellent or good response to the medication. The effectiveness of medication A (methdilazine 4 mg.) was 87.6%, medication B (methdilazine 8 mg.) 89.3%, the first placebo (C) 26.8%, and the second placebo (D) 23.2 per cent. On medication A, 3 children complained of some drowsiness and one of headache. On medication B, two complained of some drowsiness and one headache. On medication C, the first placebo, one complained of being slightly drowsy and one became irritable. On medication D, the second placebo, there were no patients who complained of side effects.

Statistical analysis of these results seemed to be necessary because of the incidence of "placebo reactors" and total number of patients involved. Each drug dosage period was compared with a different control period. Medication A (methdilazine 4 mg.) was compared with medication C (first placebo), and medication B (methdilazine 8 mg.) was compared with medication D

or pathologic changes following large daily doses.

The value of the double-blind technic in the appraisal of drugs in which any element of subjective response is necessary, is emphasized by this study. Table 2 shows that 26.8% of the patients indicated effective symptomatic response from the first placebo and 23.2% from the second placebo. We agree with Modell and Houde⁵ in regard to the importance of the double-blind technic in clinical evaluation of drugs. They have stated, "in addition to the use of placebo control, the double-blind control should be used whenever and wherever it is possible."

Conclusions

1. In 56 children, methdilazine 10 (1-methyl-3-pyrrolidylmethyl) phenothiazine hydrochloride (methdilazine) was used as symptomatic medication for allergic rhinitis.

2. The double-blind technic was used in the clinical evaluation of this new antihistamine.

3. On 4 mg. of methdilazine twice a day, 87.6% received effective benefits. This compares with 89.3% who had an effective re-

sponse to 8 mg. of methdilazine twice a day.

4. Methdilazine has a long duration of action, between 8 and 12 hours.

5. The only side effect of importance in this series was sedative effect in about 10% of the children.

6. The incidence of "placebo reactors" in this clinical study concerning the symptomatic relief of allergic rhinitis in children, approached 25 per cent. We believe that the use of the double-blind technic with placebo controls should be used in drug appraisals of allergic rhinitis.

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STAFF CONFERENCE

Saint Thomas Hospital*

DR. LAURENCE A. GROSSMAN: Today's most interesting patient will be presented by Dr. Levesque.

DR. PATRICK LEVESQUE: *Present Illness:* This 51 year old man was admitted to the surgical service on July 28, 1959, with the chief complaint of pain, numbness and tingling in the first three fingers of the right hand. He had advanced rheumatoid arthritis of 18 years' duration. He had been on steroid therapy for 9 years. During the 4 years prior to this admission he had taken 10 mg. of Meticorten and 4 tablets of Bufferin daily. He had received one injection of ACTH monthly. He had marked pain over the median nerve distribution in the thumb, index and middle fingers on the volar aspect of the right hand. The neurologic findings were characteristic of the carpal tunnel syndrome. Prior to the operation for decompression of the median nerve, he was seen in medical consultation.

Physical Examination: Physical examination showed an obese, plethoric, "Cushingoid" man in no distress. His blood pressure was 210/110, pulse regular at 98, respiration 22, temperature 99 degrees. He exhibited remarkable deformities of the hands, fingers, feet and toes. The knee joints were enlarged. There was fluid in the left subdeltoid bursa. He had an enlarged, soft left olecranon bursa. Other findings were questionable exophthalmos, retinal arteriosclerosis, a few asthmatic wheezes over both lung bases, and a grade 1 systolic apical murmur. The abdomen was protuberant, but with hepatosplenomegaly.

Laboratory Findings: The following laboratory examinations were obtained. Hgb. 14.2 Gm.%, WBC. count 12,600 per cu. mm. with 83% segmented neutrophils, 2% eosinophils, 13% lymphocytes; and 1% monocytes; platelets were adequate. The urine had a specific gravity of 1.022 with 1 plus albuminuria, 4 to 8 WBC. per high power field. The serum potassium was 4.4 and sodium 142 meq/l, the blood sugar 85 and NPN. 36 mg.%. The uric acid was 10.1 mg.% and a repeat determination was 10.2 mg.%. A P.S.P. was done and a 5% excretion was obtained after 15 minutes on a urine specimen of 40 cc. There was a total excretion of 30% after 2 hours. The EKG revealed a sinus tachycardia and a left ventricular hypertrophy pattern. X-ray of the left hand (Fig. 1) showed multiple cystic areas in the distal end of the proximal phalanx of the second finger and the proximal end of the middle phalanx of the same finger. There were also changes in the distal interphalangeal joints of the first and second fingers with sharpening of the corners and cystic punched out areas

in this region. The left foot (Fig. 2) showed similar lesions in the distal end of the first metatarsal and in some of the tarsal bones. There was extensive soft tissue calcification. A K.U.B. film

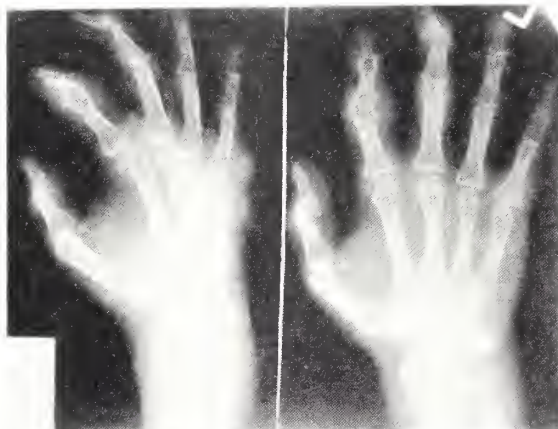


FIG. 1. Left Hand



FIG. 2. Left Foot

was not remarkable. Chest x-ray showed moderate cardiac enlargement to the left; the lung fields were clear.

Course in Hospital: Excision of a large nodule of the first metacarpophalangeal joint of the right hand was performed. The histologic findings consisted of masses of amorphous-like pink staining material surrounded by innumerable varied size giant cells. These findings were considered compatible with the diagnosis of *gouty tophus*. On July 29, 1959, a decompression of the median nerve under brachial block anesthesia was carried out with complete relief of the presenting complaint. During his hospital stay he was weaned off Meticorten and given a total of 160 units of

*From the Department of Medicine, Saint Thomas Hospital, Nashville, Tenn.

ACTH intramuscularly in divided doses. He was placed on a low purine diet, colchicine, and Benemid.

Dr. Laurence Grossman will discuss this case.

References

DR. GROSSMAN: This patient with gout was presented at the conference today for several reasons. Recently, a patient who had been followed for twelve years with gout and had developed progressive renal disease, expired in this hospital. An autopsy was performed. Upon checking our hospital records it was noted that no previous autopsy on a patient with gout had been done in this hospital. Also, an individual who was transferred here because of anuria has just been discharged from the medical service. Investigation of this young man revealed a congenital absence of one kidney. The ureter from the normal kidney was occluded by a uric acid stone. This was the first manifestation of gout in this 27 year old man.

Two opinions as to the primary cause of gout exist. They are:

- 1) Renal basis—a specific defect in renal excretion of uric acid.
- 2) General metabolic anomaly in purine metabolism with over-production of uric acid.

Renal clearance studies in gouty subjects have failed to disclose any intrinsic differences from the normal. The kidney, therefore, does not play a primary role in gout.

Renal damage is an important complication of gout and plays a role in the ultimate course of the disease. The gouty kidney includes aging, uric deposits, stones, infection, and hypertension.

Gout actually consists of two component parts; one a recurrent acute arthritis; second, a chronic defect in metabolism, manifested by hyperuricemia—an elevation above normal levels in the concentration of uric acid in the blood. There is great difficulty in bridging the gap between these two aspects of the disease and one might best consider them separately.

The evidence that excessive production of uric acid underlies the hyperuricemia of gout comes from experiments in which precursors of uric acid, such as glycine, labeled with isotopic carbon (C^{13} or C^{14} or nitrogen N^{15}), have been administered in normal and

gouty subjects. From measurements of the fraction of administered isotope which appears in the urine as uric acid, the activity of the synthetic pathway leading to uric acid may be estimated. Many gout patients have been found to excrete more of the administered isotope under these circumstances as uric acid than did the normal control subjects. In such patients, we have direct evidence of an excessive activity of uric acid synthesis.

Yet, the hyperuricemia of primary gout remains somewhat unexplained. The following facts may be relevant:

- 1) Gout occurs predominantly in the male.
- 2) According to Hippocrates, gout is not encountered among eunuchs.
- 3) Colchicine has been shown in mammalian species, the rabbit and the hamster—to inhibit spermatogenesis markedly. This action is presumably a consequence of the well-known mitotic arrest due to this drug.

From these facts one may infer that primary gout in the male is indeed secondary to exocrine, spermatogenic function of the testes. In terms of this hypothesis, there exists in the male an added load in nucleic acid activity over and above that in the female. The function of colchicine in arresting mitosis in the testis and perhaps elsewhere might then be invoked to account for its beneficial effect in gout. This reconstruction of events, although attractive, leaves much to be desired.

Torphaceous gout results when the rate of the urate formation exceeds the capacity to dispose of urates by the kidney and other excretory routes, i.e., there is a positive urate balance. Management should be aimed at maintaining a state of negative urine balance. Methods of accomplishing this include:

- (a) Reducing the rate of urate formation—not successful.
- (b) Dietary restrictions of purine and urate precursors—insufficient.
- (c) Use of uricosuric drugs to inhibit tubular reabsorption of urates and thus promote the rate of urate excretion.

To be of value the uricosuric drug must be potent enough to enhance urate excre-

tion in feasible dosage. It must be sufficiently selective in its effect on renal tubular transport of urate to avoid undue loss or retention of essential metabolites. It must be of low toxicity so that it can be administered over a long period of time. Many drugs have been available in the past. These include:

- 1) Caronamides.
- 2) Butazolidine.
- 3) Probenecid (Benemid). This reduces the uric acid to less than 7 mg./l. and may reduce the size of the tophi. It has no analgesic properties.
- 4) Sulfinpyrazone (Anturan). This is a butazolidine derivative. It is better than Benemid. The usual dosage is 100 mg. t.i.d.
- 5) Zoxazolamine (Flexin)—100 mg. 4 times daily is the usual dose.
- 6) Acetylsalicylic acid (aspirin)—a fair uricosuric agent. However, it must be used by itself to be successful because it has been observed to suppress the effect of other uricosuric agents.

In using the uricosuric agent, the urine output must be kept high and the urine should be kept alkaline, preferably with the use of sodium bicarbonate.

As far as diet is concerned, one should restrict the preformed purine and reduce the protein intake to less than 80 Gm. daily. A high fat diet has also been noted to diminish the urinary excretion of uric acid.

It should be remembered that uricosuric drugs are of no value in the treatment of acute gouty arthritis. Their use is to alleviate the hyperuricemia *per se*, and in gouty subjects with renal calculi their use is controversial and not to be recommended at the present time.

Of drugs available in the treatment of acute gout, the following should be mentioned:

- 1) Colchicine.
- 2) Phenylbutazone (Butazolidine) dosage 800 mg. the first day—600 mg. daily afterwards for one week.
- 3) ACTH 120 mg. given intramuscularly for severe gout.

Tophi, either by clinical appearance or x-ray demonstration, are indications for uricosuric agents. In most instances, the uricosuric agents employed should be com-

bined with colchicine and should be continued until all tophi disappear.

The various types of reactions which are encountered with drug intolerance include rash, renal colic, precipitated acute attacks of gouty arthritis, and gastric distress.

Gout is a disease peculiar to man. It has afflicted the species since the dawn of history. Among the earlier diseases it is one of the first for which a specific remedy, still widely employed, was discovered. Perhaps because of the extreme pain which it produces and in part because of its apparent association with men of unusual accomplishment, gout has attracted more than its legitimate share of medical and literary attention. The pain of gouty arthritis has been variously described by many of its victims. Perhaps the most frequently quoted verbal picture is attributed to the early nineteenth century cleric and wit, Sidney Smith: "When I have gout, I feel as if I am walking on my eyeballs." Many of the curse words in English language are attributed to sufferers of gout. The earliest clear description of gout is credited to Hippocrates in 500 B.C., who separated this disease from the vast welter of arthritic diseases.

The sole reference in all mother goose poems to disease of any kind refers to gout and is recited as follows:

"Lazy Tom with jacket blue,

Stole his father's gouty shoe.

The worse harm that dad can wish him,

Is his gouty shoe may fit him."

Uric acid, like gout, has a distinguished history. It was Scheele, better known as one of the discoverers of oxygen, who, in 1776, first described uric acid as a component of certain stones of the urinary tract. Wollaston, in 1797, identified the crystals of tophi as salt of Scheele's uric acid. The British physician, Garrett, in 1848, observed that crystals of uric acid could be grown when the sera from the blood of gouty, but not of normal, subjects were evaporated under suitable conditions, and he proposed the analysis of the blood for uric acid as a diagnostic procedure for gout. This analytical procedure was one of the earliest to be applied to the blood of patients for diagnostic purposes.

Historians of gout are impressed by the

fact that gout is remarkably frequently encountered among persons of distinction and accomplishment. Among the great who are reputed to have suffered, Stetten lists Alexander the Great, Kublai Khan, Queen Anne, and the military leaders Winfield Scott, John Churchill, and the first Duke of Marlboro. Both the elder and younger Pitt suffered from gout, as did Benjamin Franklin. Famous physicians who were known to have the disease included William Harvey, Thomas Sydenham, and John Hunter. Sir Issac Newton and Charles Darwin were victims of this disease. In the roster also almost all leaders of religious reform—Martin Luther, John Calvin, and John Wesley, as well as the distinguished clerics, Cardinal Wolsey and Cannon Sidney Smith. The poets included John Milton, Ben Johnson, Thomas Gray, Goethe, James Russell Lowell, Alfred Lord Tennyson, Sir Oxford Sitwell, and others. Many, many authors were subject to gout. This indeed is an impressive array of talent, especially in view of the estimated incidence of gout in the United States of approximately 0.2%.

In "A Study of British Genius," Havelock Ellis singles out gout as the one disease characteristically associated with a high degree of intellectual vigor. He points out that gout is a disease most commonly mentioned by national biographers and concludes that this association cannot be fortuitous coincidence. Such a basis is provided in a recent note by E. Orowan entitled "The Origin of Man." He emphasized that significant levels of concentration of uric acid exist among mammals only in the blood of higher apes and man. He also suggests that uric acid shares with certain other purines—notably caffeine, theobromine, and theophylline—a capacity to stimulate the cerebral cortex and the evolution of the superior intellect of certain primates, including man, derives from a single mutational event—namely, that resulting in the loss of capacity to generate hepatic uricase. Orowan does suggest an intellectual vigor is most often found in people who ingest a diet rich in meat, that is, nucleoproteins—precisely the diet which physicians have for many years suspected as contributing to the genesis of gout.

DR. LEVESQUE: Are there any other comments?

DR. GROSSMAN: Dr. Gotwald, I wonder if you could give us some autopsy findings on the patient who had gout and died of uremia last month?

DR. DAVID GOTWALD: We found amorphous material in the kidneys; the changes were not specific for gout. Most patients with this disease also have arteriosclerosis.

DR. BEN ALPER: The newest drugs, as mentioned by Dr. Grossman, have been efficacious in gout but gastric ulcers have been reported with Anturan and there have been cases of hepatitis resulting from zoxazolamine (Flexin). Presently, I would rather use probenecid (Benemid) in preference to these newer drugs.

DR. FRED OWNBY: What is the diagnostic uric acid level?

DR. GROSSMAN: Uric acid levels vary depending on the laboratories. Here at St. Thomas, the upper limits of normal is considered to be 7 mg.%, while in my own laboratory it is 6 mg.%.

DR. FRED GOLDNER: One must always bear in mind that patients might have taken uricosuric agents prior to consultation, even aspirin will temporarily lower the uric acid level.

DR. ALPER: The uric acid level varies in the same individual. It is possible to see a patient with gout who doesn't have an elevated serum uric acid.

DR. ED ANDERSON: Should a high uric acid level *per se* be called gout as hyperglycemia is termed diabetes mellitus?

DR. GROSSMAN: No, gout is a clinical entity. Hyperuricemia without any clinical arthritic or other manifestations is also encountered. One cannot make a diagnosis of gout in such an instance.

DR. ALPER: In the families of gouty patients, about 20% have hyperuricemia and only a very small percentage go on to develop gout. I would like to point out there seems to exist a relationship between diabetes and gout. There have been cases in which the development of diabetes has improved gout. There has been experimental work done in this regard on rabbits in Australia.

DR. IRWIN ESKIND: I have a patient who has both diabetes and gout. His gout

has improved but I feel this is due to the uricosuric agents employed.

DR. RALPH MASSIE: The use of C^{14} in determining the uric acid pool is more ac-

curate than the serum uric acid determination. The technic is quite simple.

DR. T. C. HAHN: I regret that our time-limit does not permit further discussion.

The Performance of the Heart (The Lewis A. Conner Memorial Lecture). Louis N. Katz, M.D. *Circulation* 21:483, 1960.

Three aspects of the performance of the heart based on the work of Katz and associates are discussed. At first this work was done chiefly on the isolated dog heart and heart-lung preparation; more recently it was upon an open-chest preparation with the heart in situ and subject to the usual neurogenic and hormonal influences.

The Manner by Which The Contractile Effort of the Heart Responds to the Work-Load Imposed Upon It. The heart may be conceived as a compression pump. Within physiologic limits the end-diastolic pressure rises progressively with increase in end-diastolic volume. The rise of end-systolic pressure with increasing end-systolic volume slows progressively until a peak is reached, after which further increases in volume cause the pressure to fall until the systolic curve meets the diastolic one. Systolic tone and peripheral resistance determine systolic residue, the amount of blood remaining in the ventricle at the end of systole. This normally appears to be about one-half of the end-diastolic volume in man. This systolic residue plus the volume of blood in the atria, the central veins, and the lungs is important in adjusting the beat-to-beat output of the heart according to need.

The stroke output of the heart is determined by end-diastolic volume, changes in systolic residue, and also by hormonal, neurogenic, chemical and thermal influences. Minute cardiac output is influenced as much, if not more, by changes in heart rate as by changes in stroke output.

The four mechanisms by which the heart adjusts to an increase in load are, (1) dilatation (2) tachycardia (3) change in its contractile power and distensibility produced by humoral, hormonal and reflex effects, and (4), when the load is

chronic, hypertrophy. These four mechanisms are more or less independent.

The Factors That Determine the Oxygen Requirement of the Heart as Its Performance Alters. Only one-tenth to one-seventh of the oxygen used by the heart appears in the form of work related to the actual propulsion of blood. A roughly similar amount of oxygen is used by the heart in maintaining its own architecture. The remainder of the oxygen consumption is expended statically in maintaining the high tension in the ventricular walls and the high pressure in their cavities. The arterial blood pressure and heart rate have been found to be the main factors governing cardiac oxygen consumption, while minute cardiac output has little effect. *Cardiac O₂ Consumption*
 $\text{Blood pressure} \times \text{Heart Rate}$ is a constant when work load alters. To some degree marked hypoxemia and severe working stress cause the oxygen consumption of the heart to decline, thus conserving oxygen in these conditions.

How the Oxygen Needs of the Heart Are Met by Adjustments in Coronary Flow and in the Rate of Oxygen Extraction. The oxygen capacity of the myocardium is very small and its oxygen debt is low. Hence, rapid adjustments in the supply of oxygen to the myocardium are essential. When increased oxygen is required by the myocardium, this requirement is met almost entirely, in the absence of disease, by a change in coronary blood flow. Arterial hypoxemia leads to a decline in the coronary A-V oxygen difference, but the percent of oxygen extracted has been found to remain the same. In hypercapnia, acidemia, and catecholamine exhibition, the coronary flow is augmented accompanied by a decline in coronary A-V difference. (Abstracted for the Middle Tennessee Heart Association by Carl C. Gardner, Jr., M.D., Columbia.)

President's Page



RALPH O. RYCHENER,
M.D.

WRITING YOUR CONGRESSMAN? MAKE IT COUNT! In this day of feverish political activity, the Forand Bill, Keogh-Simpson Bill, and numerous other contemplated acts that require doctors to keep abreast of legislative affairs, it becomes necessary for physicians to constantly be in touch with their congressmen and senators. Our members of Congress are appreciative of the wishes of those they represent and tend to be guided by the amount of mail which they receive on controversial subjects, although they recognize quality versus quantity. Certain basic information should be included in any communication going to our representatives in Washington, or even on the state level in many instances.

I have heard members of Congress say that they receive a great amount of mail from their constituents and yet upon many occasions, after reading a letter from back home, they still do not know exactly what the constituent wants or the point he is trying to make.

A letter to your Congressman or Senator (or for that matter to your Governor or a local official) will have a better chance of receiving serious attention if you follow a few simple rules. As suggestions, try these:

DO know your legislators full name and address—**DON'T** guess at the spelling.

DO use plain or personal stationery—**DON'T** send mimeographed circulars, form letters or printed postcards, which get little or no attention.

DO know what you are talking about—**DON'T** base your letter on rumors or unverified statements or figures.

DO identify clearly any bill that you mention, if possible, by name and number—**DON'T** use a vague or general description that might apply to any of several pieces of legislation.

DO be concise when presenting the facts—**DON'T** be wordy, but **DON'T** leave out any really important details.

DO be sincere and courteous—**DON'T** use flowery terms or threatening language.

DO keep your letters as brief as possible.

DO tell the essentials about yourself, your business or profession.

DO be forthright: If you're for something, say so—**DON'T** beat around the bush.

DO avoid emotion: Prove your case with facts and figures.

DO be reasonable: Seek only possible things.

DO speak for yourself: Use your own stationery and letter style.

DO be courteous: Compliment him on a good speech: thank him for a good vote.

DO request action: Your man is elected to **do** something.

DO ask for an answer. You've told him where you stand. Ask him where he stands.

DON'T stop with one letter. Keep your Congressman informed of your views on all important legislation.

These suggestions may sound elementary, but with the considerable amount of correspondence going from physicians to legislators, it is necessary to get over the message intended. This is particularly important in the days and months ahead. I urge doctors to become more interested in the many legislative problems before us and to become more active in expressing their views to their representatives on all levels of government.

Ralph O. Rychener, M.D.

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JULY, 1960

EDITORIAL

THIRST AND POLYURIA

There is little information about thirst and polyuria despite rather extensive studies in experimental animals and humans during the past forty years. In the normal person thirst is associated with oliguria, while thirst with polyuria is considered abnormal. The latter is found classically in diabetes insipidus. Fourman and Leeson¹ have recently summarized our knowledge of thirst and polyuria.

Thirst is the sensation which arouses a desire for water and without it deficits of water go unheeded. Antidiuretic hormone minimizes losses of water; thirst assures that they are replaced.

The site of origin of thirst has been investigated carefully and although sensations could arise either peripherally or centrally, present evidence fails to substantiate a

peripheral origin for thirst. A "thirst center" has been located in the hypothalamus closely related to the hypothalamic center for antidiuresis.

The centers for thirst and antidiuresis can be stimulated in similar ways and the most obvious common stimulus is a deficit of water. This reduces the volume of body fluids and increases the tonicity. The injection of hypertonic saline increases the tonicity and induces thirst. There are a number of clinical states associated with thirst and a reduction of body fluids without an increase of tonicity. These include gastrointestinal hemorrhage, removal of large ascites, and the thirst which precedes the appearance of edema in cardiac failure or the nephrotic syndrome.

Thirst is apparently inhibited by muscular activity and by distension of the stomach. The most obvious examples of a failure of the thirst mechanisms are those patients who, in spite of a high plasma-sodium do not drink. In elderly and very ill people this may be the result of mental confusion or apathy. When dehydration is once established it may so impair mental function that the desire for water may be lost.

Polyuria is the excretion of large volumes of urine. In the normal person its cause may be due to the administration of too much water or the need to excrete an excess of solute. In disease, polyuria may represent an osmotic diuresis (with an isotonic or slightly hypertonic urine) or a water diuresis (with a hypotonic urine). An osmotic diuresis may account for the polyuria in renal failure with uremia and in diabetes mellitus. Water diuresis arises because the pituitary fails to release antidiuretic hormone or the renal tubules fail to respond to this hormone.

Congenital and acquired defects of the renal tubules may result in wastage of potassium as well as water. Potassium deficiency itself impairs tubular absorption of water. Potassium and calcium are physiologic antagonists; an excess of calcium, like a deficiency of potassium, can produce renal diabetes insipidus. Polydipsia and polyuria are occasionally the first and most prominent symptoms of hyperparathyroidism. These symptoms must result from the hypercalcemia rather than from the excess of

1. Fourman, Paul and Leeson, Patricia M.: Thirst and Polyuria, *Lancet* 1:268, 1959.

parathyroid hormone, since the same symptoms may appear with hypercalcemia from other causes such as osteolytic infiltration of bone, the milk-and-alkali syndrome, and vitamin D intoxication. The polyuria of potassium deficiency or calcium excess disappears with the correction of the biochemical imbalance. It is probable that the thirst associated with these disorders may result from the associated polyuria and also result from direct chemical stimulation of the thirst center.

An understanding of the anatomic, physiologic and biochemical defects responsible for symptoms such as thirst and polyuria will do much toward clarification of pathologic processes we recognize as diseases.

A.B.S.



CONGRESS ON PREPAID HEALTH INSURANCE

In mid-May the American Medical Association held a National Congress on Prepaid Health Insurance, a most stimulating and interesting session, and a move which may help to recapture its rightful place as a leader in things medical in the political, social and economic areas. This invitational meeting was sponsored by the A.M.A. Council on Medical Service, and its Chairman Dr. J. L. Ludwig of Los Angeles was in charge. Moderators of panels were members of the Council's committees on Insurance and Prepayment Plans and on Medical Care for Industrial Workers.

The purpose of the Congress may be sensed when one reviews the affiliations of those who took part in the panel discussion. Among the physicians were men who spoke for, or described the medical aims, the organization and activities of the following groups: National Association of Blue Shield Plans (Washington, D.C.); U. S. Steel Corporation (Pittsburgh); Community Health Association (Detroit); Permanente Medical Group (Oakland, Calif.); Public Assistance Programs (Denver); Union Health Service Inc. (Chicago); Chicago Truck Drivers, Chauffeurs, etc. (Chicago); United Medical Service, Inc. (New York); and The International Association of Machinists (Rochester, N.Y.). Physicians representing the activities of organized medicine in the areas

of prepaid health care were Dr. D. B. Morrison for the Commission on Medical Services, California Medical Association, and Dr. John G. Morrison, President of the Alameda-Contra Costa County Medical Society (California). Laymen who took part in the Congress represented the following: Michigan Hospital Service; Health Insurance Council; the Ross-Loos Medical Group (Los Angeles); Metropolitan Life Insurance Company; the former Commissioner of Insurance for Nebraska; American Farm Bureau Association; Social Security Department of the United Auto Workers (C.I.O.); New York Life Insurance Company; American Hospital Association; and the A.M.A. Department of Economic Research. A summary of the conference was given by Walter J. McNerney, Professor in the School of Business Administration of the University of Michigan. Welcoming and opening remarks were made by Dr. F. J. L. Blasingame, Executive Vice-President, and Dr. Arch O. Pittman, of the House of Delegates of the A.M.A.; Speaker of the House, Dr. Norman A. Welch opened the presentations of the Congress with "The American Medical Association and Voluntary Health Insurance."

Though this is a long and detailed list, the reader should recognize that such representation on discussion panels has given the opportunity to representatives of political pressure groups or organizations at odds with organized medicine to express their philosophies on universal medical care and prepayment plans. The opening speaker for the A.M.A. emphasized the conference was not a bargaining session and was aimed at the attempt to encourage free discussion to aid in the development of prepaid insurance. Further, an objective was to bring out for discussion present-day problems in insurance so an answer may be found for these. It was recognized that improvement and scientific advances in all facets of medical care had created the problem of the high cost of medical care and that insurance needs to be developed to meet this problem. The need for the individual's freedom thereby was emphasized to contrast with the deficiencies of paternalistic governmental medical care.

It would be impossible to detail the dis-

cussions of the two-day session and of the thirty or so speakers on the panels. One panel pointed to a discussion "of various viewpoints as to where we are today and the problems that must be met and solved to make voluntary health insurance continue and increase in effectiveness." A second panel considered "some of the experiments being conducted in the application of the prepayment idea. . . ." The third panel discussion was "of the impact of insurance abuses upon benefits and costs and what can be done to get all groups to accept their respective responsibilities (insurance companies and prepayment plans, physicians, hospitals, insured individuals, employers and unions under group plans)." A fourth panel considered "the costs involved in broader and more comprehensive benefits; meeting the ever increasing demand for including out-patient care, preventive and diagnostic services, nursing home care, mental health, dental care, coverage for the aged and organized home care services."

The reader may well guess the many items which came up for discussion; some of them were emphasized over and over through the voices of numbers of speakers. The most often mentioned was that the public is impatient with medical costs, wishes the best medical care for its family and demands that it be available without the total cost coming out of its individual pocket. The ineffectual aspects of prepayment plans is too often to be laid upon lack of cooperation between, doctors, hospitals and insurance carriers. From whatever viewpoint the speakers looked at the problem of adequate medical care, all were in agreement that some form of socialized medicine would evolve if prepaid health insurance fails. Though group practice, especially as related to industry and to unions, has been in bad odor with the medical profession, both physicians and laymen speaking for such deny that this represents "socialized" medicine, and insist that freedom of choice of doctor and consultant are compatible with such plans and are part of the plan in some instances. Labor, speaking for such plans, believes physicians should not be penalized in their professional relationships because they take part in such organizations. Fee schedules na-

turally came into the discussions at intervals as needed yardsticks for computing medical costs and their coverage. Under abuses the insurance carriers came in for their share on over-selling policies, loose contracts and fraudulent advertising. Hospitals get their "take" at times in the misuse or overuse of services provided for by policies. Doctors contribute to *legal* abuse by prolonged hospitalization and over-utilization of services. *Illegally* doctors have been known to file false reports and charges for hospital visits or professional services not provided. Lastly, as the representative of an insurance company pointed out, 75 per cent of the medical dollar is not now covered by prepaid insurance, nor will it ever be possible to cover everything, medical or surgical, by insurance at a price an individual can afford to pay.

Repeatedly it has been pointed out on these pages that medicine *only* is in the position of adequately and sanely leading the Nation through the inevitable political jungle and morass of demands of the American public for adequate medical care at low cost.

In the sponsorship of this Congress the leaders of the American Medical Association demonstrated an attitude which is looking forward, and willingness to lead the way to a rational solution for the provision of medical care to a people in the last half of the twentieth century.

R. H. K.

DEATHS

Dr. John Kencade Cooper, 59, Morristown, died June 16th at his home.

Dr. Dowling C. Morris, Chattanooga, died May 15th in a local hospital.

Dr. Henrietta Veltman, Paris, died May 28th at her home. Dr. Veltman was 79.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Greene County Medical Society

The Society met for its monthly meeting on the evening of June 7th at the Elks Club in Greeneville. The president, Dr. Rae Gib-

son presided. The scientific portion of the program consisted of a film furnished by E. R. Squibb Company, entitled, "Nutrition in the Hospital Patient."

The Society will invite members of the Bar to meet with them in October. Dr. Luke Ellenburg, with the assistance of other members, will prepare a paper entitled "Why I Do Not Like to Attend Court" for presentation at the October meeting.

Knoxville Academy of Medicine

The Society conducted its monthly meeting on June 14th in the Academy of Medicine Building. The guest speaker was Mr. I. D. Barfield whose subject was "Risks and Rewards of Investing."

Chattanooga-Hamilton County Medical Society

The June meeting of the Society was the annual outing and barbecue at the Chattanooga Rod and Gun Club.

On July 5th the Society met in the Interstate Building. The scientific program consisted of a paper entitled "Choriocarcinoma" by Dr. Stewart Auerbach, and a second paper entitled "Ostamer" by Dr. Paul Thompson.

Roane County Medical Society

The Society's monthly meeting was held at the Oak Ridge Hospital on June 28th; the meeting was preceded by a dinner in the Starlight Room of the Oak Terrace. The program speaker was Dr. Mark Fecher of Knoxville whose subject was "Interesting Small Bowel Lesions."

Memphis-Shelby County Medical Society

The Memphis and Shelby County Medical Society met in regular session on May 3rd at the Institute of Pathology Auditorium. The scientific program consisted of two parts: (1) "The Pros and Cons of Social Security for the M.D." by Mr. Warren E. Whyte representing the legal division of the American Medical Association; (2) "Mal-Practice Insurance" by Mr. Joseph M. Clinard, Jr., resident Vice President of the Shelby Mutual Insurance Company, Shelby, Ohio.

Washington-Carter-Unicoi County Medical Society

The Society met on June 2nd at the Johnson City Country Club. Dr. Wm. S. Reinhoff, Jr., chief of the department of surgery, Johns Hopkins University Medical School, Baltimore, Maryland, was the guest speaker. His subject was "Newer Surgical Concepts of Surgery of the Stomach and Duodenum."

NATIONAL NEWS

THE Month in Washington (From the Washington Office, AMA)

An omnibus bill approved by the House Ways and Means Committee contains two provisions of major importance to physicians—Social Security coverage for doctors and a Federal-state program to provide health care for older persons with low incomes.

About 150,000 self-employed physicians would be covered by Social Security on the same basis as lawyers, dentists and other self-employed professional people now are covered. Becoming effective for taxable years ending on December 31, 1960, or June 30, 1961, self-employed physicians would be required to pay a Social Security tax of 4½ per cent of the first \$4,800 of income. Physicians also would be subject to the automatic increases in the Social Security tax in future years.

Medical and dental interns would be covered for the first time also.

Rep. Wilbur Mills (D., Ark.), Chairman of the Ways and Means Committee, was the main architect of the health program for "medically indigent" aged. It was designed to provide a broad range of hospital, medical and nursing services for persons 65 years of age and older who are able financially to take care of their ordinary needs but not large medical expenses.

It would be up to each state to decide whether it participates in the program. The extent of participation—the number of benefits offered to older persons—also would be at the option of individual states.

The states would determine the eligibility of older persons to receive benefits under

the program. However, the legislation laid down a general framework for eligibility: persons 65 years and older, whose income and resources—taking into account their other living requirements—are insufficient to meet the cost of their medical care.

The program could not become effective until July 1, 1961. Before putting such a program into effect, a state would have to submit to the Federal government a plan meeting the general requirements outlined in the legislation. The program would be financed jointly by the Federal and state governments. Federal grants would have to be matched by participating states on the same basis as under the present old-age assistance formula.

States could elect to provide, with Federal financial aid, any or all of the following benefits:

1) Inpatient hospital services up to 120 days per year; 2) skilled nursing-home services; 3) physicians' services; 4) outpatient hospital services; 5) organized home care services; 6) private duty nursing services; 7) therapeutic services; 8) major dental treatment; 9) laboratory and x-ray services up to \$200 per year, and 10) prescribed drugs up to \$200 per year.

The committee put a \$325 million price tag on the program for the first full year of operation—\$185 million Federal and \$140 million state. However, this estimate could hardly be more than an educated guess of sorts. The actual cost would depend upon unpredictable factors—how many states would participate, how many benefits they would offer, and how many older persons would qualify and what services they would require.

The committee estimate was based on between 500,000 and 1 million older persons a year receiving health services under the program. If all states participated fully, the committee said, potential protection would be provided as many as 10 million aged whose financial resources are so limited that they would qualify in case of serious or extensive illness.

Payments under the program would go directly to physicians and other providers of medical, hospital and nursing services.

In addition to the federal grants for the "medically indigent," about \$10 million

more in federal funds would be authorized for payment to states for raising the standards of medical care benefits under present public assistance programs for older persons.

The approach of the Mills program was similar to that of Point 2 of the American Medical Association's 8-point program for health care of the aged. Point 2 stated that the AMA supports federal grants-in-aid to states "for the liberalization of existing old-age assistance programs so that the near-needy could be given health care without having to meet the present rigid requirements for indigency." Such a liberalized definition of eligibility should be determined locally, the AMA said.

Approval of the Mills plan by the committee marked a sharp setback for organized labor leaders. But they continued their all-out pressure campaign in an effort to get Congressional approval of Forand-type legislation that would use the Social Security system to provide hospitalization and medical care for the aged. After being defeated in the Ways and Means Committee, labor union leaders and other supporters of Forand-type legislation directed their major efforts to trying to get the Senate to substitute the Social Security approach.

The committee has been considering health-care-for-the-aged legislation intermittently for more than a year. Hearings were held on the Forand bill last summer but action was postponed until this year.

Prior to approving the Mills plan, the committee rejected the Forand bill (three times) and the Eisenhower Administration's far-reaching public assistant alternative. Both plans were opposed by the medical profession and allied groups.

While these legislative proposals were in the limelight, a little-noticed bill was enacted into law to give \$50 million in relief to taxpayers burdened with taking care of ill dependent parents.

The new law permits taxpayers full deduction on federal income taxes for medical and dental expenses paid for a dependent parent 65 years of age and older. Previously, such a deduction was limited to costs in excess of three per cent of the taxpayer's adjusted gross income.

Changes in the Social Security program

called for in the catch-all bill approved by the Ways and Means Committee included:

- 1) Eliminate the requirement that a disabled person must be at least 50 years old to be eligible for Social Security benefits.
- 2) Provide Social Security benefits for about 25,000 widows of workers who died before 1940.
- 3) Increase the benefits of 400,000 surviving children of workers covered by Social Security.

Although all these revisions will increase costs of the program, neither the Social Security tax rate nor tax base was increased.

The revisions will mark the fifth consecutive year of a national election that the Social Security program, originally enacted in 1935, has been expanded. Some of the expansions have been accompanied by tax increases.

MEDICAL NEWS IN TENNESSEE

Mr. C. P. Maguire, 40, Nashville, is now affiliated with the Tennessee State Medical Association as a member of the headquarters staff. Mr. Maguire is a native of Illinois but has been a resident of Tennessee for the past 20 years. He will serve the Association in a number of administrative capacities, servicing ten active committees of the Association and assisting in the conduct of TSMA programs. He has studied for the law profession and was affiliated with the Medical Corps of the U. S. Army Air Forces for the past seventeen years. He served in World War II and the Korean conflict. Mr. Maguire has been a member of the Association of Military Surgeons of the U. S. for twelve years. He has attended numerous schools relative to management of mass casualties. For eight years he was connected with American Air Lines in Nashville in various administrative capacities including administrative assistant to the manager of operations and personnel. He has had considerable experience in the U. S. Army Air Forces as a hospital administrator. In his early life, he was connected with the Illinois Central Railroad in Chi-



Mr. C. P. Maguire

cago in a Public Relations and Administrative capacity. For the past two years and immediately prior to joining the Association, he has served as Assistant to the Treasurer of the Board of World Missions of the Presbyterian Church of the United States. He is active in the Episcopal Church in Nashville. He makes his home with his wife on Golf Club Lane in Nashville. Mr. Maguire replaces Mr. Roland G. Stetler, a former member of the staff who has resigned to re-enter the insurance business.

Central State Hospital

On July 1, Dr. Frank Luton, Professor of Psychiatry, Vanderbilt School of Medicine, assumed the duties of Clinical Director of Central State Hospital. In this position he will direct the work of the medical staff and will help develop policies in treatment and teaching programs at the Hospital. Dr. Luton is a Diplomate of the American Board of Psychiatry and Neurology and Fellow of the American Psychiatric Association. He is past President of the Southern Psychiatric Association and the Central Psychiatric Association, and has been Chairman of the Section on Psychiatry, both of the A.M.A. and of the Southern Medical Association. Dr. Luton has been Chairman

of the Committee on Mental Health of the Tennessee State Medical Association for a number of years.

Both Dr. O. S. Hauk, Superintendent of Central State Hospital, and Dr. Joe Baker, Commissioner of Mental Health for Tennessee, offer Dr. Luton their enthusiastic support in the development of a program of continuation education for the general practitioner at Central State Hospital, which is one of his interests and for which he is planning.

Vanderbilt University School of Medicine

The many former students of Dr. Sam L. Clark, as Professor and Chairman of the Department of Anatomy, will be saddened to learn of his death on July 1, after more than six months of illness because of carcinoma of the lung. Dr. Clark was born in Nashville in 1898, received his B.S. degree from Vanderbilt University in 1922, his M.S. degree from Northwestern University in 1924 and Ph.D. degree in Anatomy from Washington University in 1926. His M.D. degree was conferred by Vanderbilt University School of Medicine in 1930, since which he taught in the Department of Anatomy at Vanderbilt, becoming Professor and Chairman of the Department in 1937, succeeding Dr. Sidney Cunningham. He had been President of the American Association of Anatomists 1950-52, and was Editor of the American Journal of Anatomy at the time of his illness. He revised the later editions of Ransom's "Anatomy of the Nervous System."

More than anyone else his former students will remember Dr. Clark as a sympathetic and fatherly advisor to first year medical students especially, in the worrisome transition from the undergraduate college to the medical school curriculum. For all others he will be remembered as the epitome of a true gentleman.

Pediatric Symposium Held in Nashville

An all-day symposium on pediatric problems was conducted in Nashville on May 19th by the Andrew Jackson Chapter of the Tennessee Academy of General Practice, in cooperation with Vanderbilt University School of Medicine. Approximately 100 physicians from throughout middle Tennes-

see attended. A highlight of the session was a luncheon for those attending. The luncheon speaker was Dr. Frances L. Ilg, director of the Gessell Institute of Child Development, New Haven, Connecticut. Dr. Ilg discussed "Emotional Problems in Children as Related to Growth."

Speakers included Dr. C. Fischer, professor and head of the department of pediatrics, Hahnemann Medical College and Hospital, Philadelphia; Dr. Murdina M. Desmond, associate professor of pediatrics, Baylor University College of Medicine, Houston; Dr. Francis M. Forster, professor and chairman of the department of neurology, University of Wisconsin School of Medicine; and Dr. W. D. Snively, Jr., lecturer in pediatrics, University of Louisville and vice president and medical director of Mead Johnson Company, drug manufacturers.

Among the subjects discussed were birth injuries, recognition of congenital abnormalities, seizure disorders and fluid balance in children.

West Tennessee Speech and Hearing Center Dedicated

Dedication ceremonies were conducted on May 22nd at the new \$160,000 West Tennessee Speech and Hearing Center at Jackson. State officials participated in the ceremony.

Medical Centers in Nashville Granted \$747,508

Allocation of \$747,508 in federal Hill-Burton funds to three Nashville medical and health institutions has been approved by the state hospital advisory commission. The allocation, based on a congressional appropriation of \$4,450,616 for Tennessee in 1960-61, include \$379,289 for Vanderbilt Hospital, \$306,219 for Hubbard Hospital, and \$62,000 for the John J. Lentz Health Center.

The Vanderbilt allocations include \$122,663 for construction of a 62-bed addition, \$151,278 for the diagnostic and treatment center, and \$105,348 for rehabilitation facilities. The Hubbard money is for construction of a 70-bed addition.

American Association of Doctors Nurses

Since it is possible that some doctors' nurses and doctors' aides may be misled by

an outfit calling itself the American Association of Doctors' Nurses, a statement from the American Medical Association headquarters to editors of state and county medical societies is printed in part:

"An organization called the American Association of Doctors' Nurses recently issued a new release stating that the American Medical Association will loan a part of its large collection of exhibits to this group's convention in Miami, Florida, June 23-26, 1960.

"This is an incorrect statement. The American Medical Association has not loaned any exhibits to this group.

"Originally known as the American Registry of Doctors' Nurses, this organization, which mailed its promotional materials from Marianna, Florida, was said to be in violation of the Nurses Practices Act in Florida in 1958 by the Attorney General in that state.

"The Group moved to Washington, D.C. Last summer the Federal Trade Commission charged this group with misrepresenting itself as a nonprofit organization and with giving the customers the means to misrepresent themselves as registered graduate or licensed nurses. The organization changed its name to the American Association of Doctors' Nurses and in a news release issued some months ago stated that

"The American Association of Doctors' Nurses . . . has assumed the membership of the old American Registry of Doctors' Nurses."

Every doctor should be on the alert against giving unwitting aid to the organization.

Status of Hill-Burton Grants

The Department of Health, Education and Welfare reports that as of May 31st, the status of all Hill-Burton grants for the State of Tennessee are as follows:

Projects Approved During Last Month: Bradley County Nursing Home, Cleveland, estimated total cost \$86,538—Approved federal share for additional beds totaled \$40,000.

Completed and in Operation: 121 projects at a total cost of \$84,849,435, including federal contribution of \$32,493,552 and supplying 4,315 additional beds.

Under Construction: 22 projects at a total cost of \$24,695,103, including federal contribution of \$9,527,488 and designed to supply 1,090 additional beds.

Approved, but not yet under construction (including above): 12 projects at a total cost of \$4,548,465, including \$2,198,004 federal contribution and designed to supply 166 additional beds.

Middle Tennessee Medical Associations

The 131st semi-annual meeting of the Middle Tennessee Medical Association was held on May 26 at the Royal York Hotel in Clarksville. Dr. John S. Derryberry, Shelbyville, President, presided; approximately 75 doctors were in attendance.

The scientific program consisted of the following papers: "Segmental Perfusion in the Treatment of Cancer," by Dr. Malcolm R. Lewis, Nashville; "The Prognosis of Brain Tumors," by Dr. David Scheibert, Nashville; "Rheumatoid Arthritis of the Hands," by Dr. Ben Fowler, Nashville; "Upper Back Ache with Question of Thoracic Disc," by Dr. Charles A. Trahern, Clarksville; "Errors in Surgical Concept and Technique in Regard to the Treatment of Duodenal Ulcer," by Dr. J. Lynwood Herrington; "Management of Chronic Leg Ulcers," by Dr. Andrew W. Dale; "Intermedullary Fixation of Fractures of the Long Bones," by Dr. Parker Elrod, Centerville; and "Primary Treatment of Femoral Neck Fractures with Prosthesis," by Dr. Arnold Haber, Nashville.

Upper Cumberland Medical Society

The Society held its 76th Annual meeting at the Cloyd Hotel, Red Boiling Springs, June 28-29 under the presidency of Dr. Beverly Douglas, of Nashville. The following program was presented: "Intracardiac Tumors (Color Film) Diagnosis and Surgical Removal," by Dr. Harold Collins and Dr. Crawford W. Adams, Nashville; "The Artificial Kidney (Personal Experience)," by Dr. Fred Goldner, Nashville; "Spondylolisthesis," by Dr. Charles M. Hamilton, Nashville; "Resection of Unprepared Bowel," by Dr. Robert N. Sadler, Nashville; "Surgical Treatment of Hearing Loss," by Dr. W. G. Kennon, Jr., Nashville; "Infectious Hepatitis—A Filthborne Disease," by

Dr. Alex B. Shipley, Knoxville; "Analysis of the Results of Femoral Neck Fractures Over a Five-Year Period," by Dr. Thomas F. Parrish; "Segmental Perfusion in the Treatment of Inoperable Cancer," by Dr. Malcolm R. Lewis, Nashville; "Adult Intussusception," by Dr. G. Y. Graves, M.D., Bowling Green, Ky.; "The Prevention of Carcinoma of the Cervix," by Dr. W. Powell Hutcherson, Chattanooga; "Early Diagnosis and Treatment of Congenital Hip Disorders," by Doctors Vernon Hart and John J. Killeffer, Chattanooga; "The Function of Audiology in Current Medical Practice," by Dr. Jack A. Willeford, Nashville; "Current Thoughts About Psoriasis and Its Management," by Dr. Robert N. Buchanan, Jr., Nashville; "The Management of Peripheral Arteriosclerotic Aneurysms," by Dr. William H. Edwards, Nashville; "Africa and the Holy Land—Slides," by Dr. C. C. Howard, Glasgow, Kentucky, and "The Prognosis of Brain Tumors," by Dr. C. David Scheibert, Nashville.

West Tennessee Medical and Surgical Society

The Society met at the New Southern Hotel, Jackson on May 26. The program consisted of the following: "Recent Trends in Diagnosis and Therapy of Uterine Cancer," by Dr. Ben E. Everett, Memphis; "Diagnosis and Treatment of Cancer of the Colon and Rectum," by Dr. Julian Welch, Brownsville; "The Treatment of Common Fractures Seen in General Practice," by Dr. Fred P. Sage, Memphis; "Cardiac Arrhythmias," by Dr. Dan Copeland, Memphis; "Surgery of Tumors of the Adrenal Glands," by Dr. Bob Miles, Memphis, and "The Ten Most Common Dermatoses—Color Slides and Comments," by Dr. Harold Alsobrook, Jackson. The after-dinner address was entitled "Fibrinogenopenia and Fibrinolysis," and was given by Dr. L. W. Diggs, Professor of Medicine, and Director of the Department of Medical Laboratories at the University of Tennessee and City of Memphis Hospitals.

The Tennessee Radiological Society

At its meeting recently in Nashville the Society elected the following officers: President, 1960—Dr. George Henshall, Chatta-

nooga; President-elect, Dr. Ed H. Mabry, Memphis; Vice-President, Dr. M. D. Ingram, Jr., Nashville; and Secretary-Treasurer, Dr. James J. Range, Johnson City. Councilors nominated for the American College of Radiology are Dr. Walter D. Hankins of Johnson City and alternate, Dr. J. Marsh Frere of Chattanooga.

Tennessee Society of Pathologists

At the meeting in Nashville on April 11, the following officers were elected: President, Dr. John B. Thomison, Nashville; President-Elect, Dr. C. C. Erickson, Memphis; and Secretary-Treasurer, Dr. C. Harold Steffee, Oak Ridge. Dr. George F. Bale, Memphis and Dr. David K. Gotwald, Nashville, were nominated for the position of Assemblymen to the College of American Pathologists, along with Dr. R. J. Leffler and Dr. Steffee.

PERSONAL NEWS

Dr. John E. Neumann, Paris, has been installed as president of the West Tennessee Heart Association. Other officers elected included **Dr. Laurence Jones**, Union City, president-elect.

Dr. W. A. Anderson, Dyersburg, has been elected president of the West Tennessee Medical and Surgical Association. He succeeds **Dr. George Spangler** of Humboldt. **Dr. Leland Johnston**, Jackson, was named first vice president and **Dr. James Carroll**, Savannah, second vice president.

Dr. E. Harold Steffee, Oak Ridge, recently addressed the Tennessee Nurses Association, District 8.

Dr. Joseph W. Johnson, Jr., Chattanooga, appeared recently on a local television program entitled "Point of View."

Dr. Samuel S. Riven, Nashville, was installed on June 11 as president of the Tennessee Heart Association. **Dr. Joseph E. Acker, Jr.**, Knoxville, was named president-elect.

Dr. Homer D. Venters, Chattanooga, is leaving his practice to enter a research center at the University of Minnesota.

Dr. E. P. Mobley, Jr., has been elected chief of staff of the Henry County General Hospital. **Dr. Kenneth Ross** was elected vice chief and **Dr. Ike Jones** was named secretary. New members of the Executive Committee are **Dr. Graham Fish** and **Dr. W. G. Rhea**. All of these physicians are from Paris.

Dr. Travis McCall, Franklin, will become associated with **Dr. Harry Guffee** in the practice of medicine in October.

Dr. Wm. C. Crowder, Maryville, was re-elected

chief of staff of the Blount Memorial Hospital. **Dr. G. T. Proctor** was named vice chief of staff succeeding **Dr. John A. Yarbrough** and **Dr. Cecil B. Howard** was re-elected secretary. Named chief of surgery was **Dr. James N. Proffitt** and chief of medicine is **Dr. Julian K. Lentz**.

Dr. Maurice S. Fawcetts, Chattanooga, spoke before the national meeting of the American College of Chest Physicians in Miami.

Dr. Amos Christie, Nashville, recently addressed the Jackson Lions Club. His subject was "Illnesses of Presidents."

Dr. Fred Furr, originally from Knoxville, has become associated with **Dr. Burgin Wood** and **Dr. James Crutchfield** in the practice of medicine in LaFollette.

Dr. William B. Sanders, formerly of Nashville, has joined the staff of Goodall Clinic at Smyrna.

Dr. Walter McLeod of Johnson City, has been elected president of the Appalachian Chapter of the American Heart Association.

Dr. Albert H. Fick, Humboldt, has been elected president of the medical staff of St. Mary's Hospital. Other officers are **Dr. E. C. Crafton**, vice-president and **Dr. James W. Hall**, secretary, both of Trenton.

Dr. Felix G. Line, Knoxville, has been elected president of the Tennessee Pediatrics Society, succeeding **Dr. Phil L. Elliott**, Nashville.

Dr. John Munro, Kingsport, recently attended the Pan American Medical Congress in Mexico City.

Dr. Alvin S. Crawford, formerly of Belleville, Illinois, is now a pathologist at Bristol Memorial Hospital.

Dr. James W. Richardson, Morristown, has been re-elected to serve a three-year term on the Board of Directors of the East Tennessee Heart Association.

Dr. Ralph R. Braund, Memphis, was the principal speaker at a cancer seminar on June 4 at Erlanger Hospital, Chattanooga.

Dr. Esile P. Muney, Jefferson City, is the new president of the East Tennessee Heart Association.

Dr. Glenn E. Horton, Memphis, appeared on the panel of the Pulmonary Function Scientific Exhibit at the recent AMA meeting in Miami Beach, Florida. He also gave a paper entitled "Pulmonary Function Testing in the Cardiac Patient" at the American College of Chest Physicians. "Applications and Value of Pulmonary Function Testing in the Tuberculous Patient" was the title of another paper presented to the American Academy of Tuberculosis.

Dr. Ben Hall, Johnson City, was a recent speaker at the annual meeting of the East Tennessee Heart Association conducted in the Andrew Johnson Hotel in Knoxville.

Dr. Samuel L. Ruess, Memphis, has been re-elected secretary of the American Urological Association at the 55th annual meeting in Chicago.

Dr. George K. Henshall, Jr., Chattanooga, spoke on the subject "Our Chattanooga Doctors" over a local TV station.

Dr. Frank L. O'Connor, Chattanooga, recently

addressed the Rossville Kiwanis Club.

Dr. James R. Royal, Chattanooga, attended a postgraduate program on fractures and dislocations at the UT College of Medicine in Memphis.

Dr. R. H. Kampmeier, Nashville, has been installed as chairman of the Board of Trustees, of Senior Citizens, Inc.

Dr. E. Converse Peirce, II, Knoxville, was guest lecturer at Emory University in a Seminar of the Division of Basic Health Sciences, May 17, on the subject of "Differential Hypothermia by Core Cooling."

Drs. William R. Cate, Sr. and **Edwin B. Anderson**, Nashville, announce the removal of their offices to the Mid-State Medical Center.

Dr. Glenn E. Horton, Memphis, announces the opening of his office for the practice of cardio-pulmonary diseases and pulmonary function testing.

Dr. William H. Edwards has joined the Edwards-Eve Clinic, Nashville, for the practice of general, thoracic, and vascular surgery.

HISTORICAL NOTES

The Organization and Administration of the Medical Department of the Confederate Army of Tennessee (Continued)

Chapter V

Surgeons, Supplies, and Summary

I was so sick I could not get up from the floor. My mind and body were both exhausted. I wished I might have the strength of ten men, there being so much still to be done. (Edwin Hutchinson Papers, Louisiana State University.)

I. Evaluation of Surgeons

The surgeons of the Army of Tennessee have been subjected to the same criticisms directed at their brothers serving in other Confederate and Union Armies. These charges ranged from accusations of habitual drunkenness to the much more grievous one that many doctors needlessly amputated limbs in order to obtain surgical experience.

Undoubtedly some surgeons were drunkards. Also present in the organization were a number of incompetents and heartless scoundrels and a few comic opera buffoons, attracted either through personal gain or fascinated by the lure of a uniform. As in all such cases, the many had to pay for the notoriety which resulted from the actions of a comparative few.

The vast majority of surgeons undoubtedly were men who sacrificed their all in an honest attempt to serve their cause and their comrades. Besides Stout, Foard, and Flewellen, the roster of the Army included the names of some of the most distinguished men in latter nineteenth and early twentieth century medicine.¹

Although somewhat overshadowed by his two illustrious sons, Bernard and Herman, Simon Baruch in his own right obtained the respect and admiration not only of his Civil War comrades, but of thousands of associates who were impressed by his devotion and generosity. He entered the army as a raw young surgeon, and emerged a mature, experienced individual showing signs of future greatness. He was truly the father to be worthy of such sons.

Joseph Jones in all probability conducted the first mass medical experiments in history with prisoners, recording maladies prevalent among them. He merely studied the effects of various diseases and made recommendations to improve conditions. He chose for his study Andersonville where disease, especially pneumonia and malaria, was rampant. The result of his work was, if anything, to better the lot of the prisoners. However, Jones' work was dragged into the trial of Major Henry Wirz, the Camp Commandant who was later executed, in an attempt to prove that a plan of mass extermination of prisoners existed, thus preceding Buchenwald and the Nurnberg trials by eighty years.² Jones later was to be a figure in the fight against yellow fever and malaria. He was a leading physician in New Orleans after the war and was not only noted for his private practice but also for the many positions of public trust in which he served. The old gentleman also left behind what were probably the most reliable records regarding the medical problems of the conflict.³

S. M. Bemiss served as Stout's deputy throughout the war. Much credit for coordination between field and hospital must go to him. Tirelessly traveling, he constantly sought methods to improve the system that had been developed.⁴

A really fabulous figure in the Western army was Julian J. Chisolm. Traveler, surgeon, writer, and a keen analyst of the

causes of inefficiency in the medical department in the early years of the war, he left behind a manual which probably was the outstanding work on military medicine of its day.⁵ Chisolm later became a well-known physician in Baltimore.

These men, together with other doctors, bore the brunt of the accusations resulting from the misdeeds of a few.⁶ The charge of drunkenness was probably the one most often hurled at physicians. There is complete agreement that much drinking took place, not only among the surgeons, but in all echelons and departments of command. McNeilly tells of one instance:

The surgeon of our regiment showed me a barrel of whiskey. He said to me, 'Now we will be apt to have a fight in a few days, and when you come to replenish your canteen just come and help yourself. But I am afraid we will not be able to keep it long. A surgeon over me often gets drunk and it will be gone.'⁷

Stout himself expressed anger with the surgeons in the field at Chickamauga, some of whom he found drunk.⁸ One surgeon was dismissed for "appropriation to his use of stimulants intended for the sick."⁹

Alex Lane, a surgeon himself, stated that many medical officers "drank up liquor with the field officers."¹⁰ The hospital surgeons were not innocent of excessive drinking, although they were not mentioned as often as were the field surgeons.

When consideration is given to the general habits prevailing in the armed forces of both the North and the South, the gravity of this charge of drunkenness lessens. In the Army of Tennessee the soldiers probably drank as much or even more than any of the other armies. Thus, it is not too surprising to see the surgeons having the reputations of being heavy drinkers, especially when thought is given to the ghastly conditions under which they worked. Nor is it possible to estimate the damaging effects of any excesses that took place. Drinking was one of the few methods of relaxation open to the surgeons, and one in which the vast majority engaged to some extent.

There were few examples of intended mistreatment of patients by the surgeons. One did occur, however, when a surgeon used "bucking and gagging to punish." He

"placed a bayonet in the mouth of a patient to bring on bleeding."¹¹

Surgeons also were accused of seeking to reap reward from the illegal sale of items such as morphine, quinine, and liquor. Miss Cumming, in a rage at what she considered unjust criticism, observed:

Dr. Core, formerly of the Bragg Hospital, was an eminent physician in Bloomfield, Kentucky. He gave up everything for the cause, and since his entering the army has been devoted to his country. Dr. Cross was one of the wealthiest men in Northern Alabama, and is a high-toned gentleman. He joined the army at the outbreak of the war, and has nobly done his duty.

Miss Cumming then further states:

Dr. Adam's health is so bad that he never had a patient who would not gladly give him all of his 'good things' any day, just to see him eat them.¹²

McNeilly, who saw that probably all men, even chaplains, shirked duty at one time or another, maintained that he never "saw a surgeon refuse his services, or desert his post as long as he could render services. Senior surgeons . . . dress wounds with bullets flying as steady as if they were in a . . . home."¹³

Thus, the evidence seems to indicate that the surgeons in both the hospital and field were conscientious men attempting to do their duty to the best of their ability and training. However, a combination of honest ignorance and acute shortage of vital materials did much to direct criticism at them. These shortages should have increased, rather than decreased, respect for the surgeon; for as one director of hospitals related:

I have seen him [southern surgeons] search fields and forests for plants and flowers that he could use. The pliant bark of a tree made for him a good tourniquet; the juice of a green persimmon a styptic; a knitting needle with its point sharply bent a tenaculum, and a pen knife in his hand and a scalpel and bistoury. I have seen him break off one prong of a common table fork, bend the point of another prong and with it elevate the bone in a depressed fracture of the skull and save life. Long before he knew the use of the porcelain lipped probe for finding bullets, I have seen him use a piece of soft pine wood and bring it out of the wound marked by the leaden ball.¹⁴

The surgeons of the Army of Tennessee were no better or worse than those in other armies of that period. They did, however, labor under circumstances much more difficult than doctors in other areas of command. This fact must be considered when any evaluation of their work is made.

2. The Problem of Supply

The professional ignorance of the personnel themselves was the first of two major unsolved problems of the Army of Tennessee, the second one being the never ending problem of supply.

There were both sectional and general shortages of required medical items including morphine, surgical equipment, and anesthetics; but the one need that was never ever completely satisfied, the one for which a cry was raised from Shiloh on through Averysboro was common, ordinary rags from which to fashion bandages and sponges. In both the hospitals and the field it was the same story, "We are in daily expectation of battle, and we are completely out of rags . . . a very necessary item at this time."¹⁵

The same rags were used time and again to bandage wounds with no other precaution taken than to give them a cursory washing. Besides being used as bandages they were also used as surgical sponges.¹⁶

Many items listed on the table of organization of the medical department were never obtained through regular channels. Examples of this are the Sibley and Wall tents. The Sibley, a round tent capable of holding eight men, and the Wall, which four men could occupy, were supposed to be part of every regimental surgeon's equipment, but the only way they were ever obtained was through capture from the enemy.¹⁷ One doctor even referred to the foe as "the commissary and purveyor of medical supplies." Another called the Federal Army "our prolific purveyor of medical supplies. The surgeons also were unanimous in their praise of Nathan Bedford Forrest's ability to obtain needed materials.¹⁸

In addition, various methods were employed to smuggle goods out through the Northern lines. One doctor in Memphis carried supplies out on the pretext of carting a dead mule to the city dump. He had cut

out the entrails of the animal and filled it with materials including morphine and chloroform. These he had obtained from the Federal supply depot in that city.¹⁹

The Southern doctors themselves helped relieve the situation when they contributed their personal equipment to the medical department. Few instruments were manufactured, and they were of a poor quality and inferior workmanship.²⁰

An unpleasant situation which affected morale and health was the lack of cutlery and dishes. In many hospitals men were obliged to eat with their fingers.²¹

In addition, the hospitals were forced to feed and care for convalescents who, upon being sent home, drew their rations and supplies from the hospitals near their homes.

The improvising done by the Confederates aided to a large extent in reducing these shortages. Many of the substitutions actually were a blessing since they were less harmful than some of the items they replaced. Others were not so good. Wild onions and garlic with sassafras were used to combat scurvy. A pond-lily poultice was applied to ulcers. *Analia spinosea* was used for relief of toothaches. Dogwood was used as an astringent tonic. Mountain laurel relieved rheumatism and gout. A cure-all, according to William Gilmore Simms, was the persimmon beer made in Orangeburg, South Carolina, and he stated that it was equal "to the best champagne or carbonated water."²²

Expedients were also employed to relieve the lack of mattresses and bedding. Palmetto leaves dried in the sun and split were used as a substitute. Wax myrtle was employed to make candles and substituted for soap.²³

Confederate agents in London were purchasing some needed medical supplies, but these medical needs had a poor priority rating. The following order of importance was given to purchases: first, arms and ammunitions; second, clothing, boots, shoes, and hats; and last, drugs and chemicals including morphine, chloroform, ether, opium, and rhubarb.²⁴ Few ships reaching Southern ports carried medical supplies.

Despite the captured supplies and the substitutions, the shortages in the Army

of Tennessee were real and continuous throughout the war. They contributed to the death rate and to the fostering of poor conditions in the hospitals. Miss Cumming understated the case when she said, "A hospital is all very well when we can get what we want, but to live as we do with just half enough of food and furniture . . . it is a very trying place."²⁵

3. Casualty Figures

It is a difficult thing to attempt to present any really reliable figures that would indicate the casualty rates in the Army of Tennessee. Records that were kept were destroyed in Richmond. The few scattered ones that do remain show that, basically, the same situations existed that were faced in the Northern armies.

Both of the contending forces in the West were bothered with malaria. The following figures show the total incidence of that disease in the two armies:

	<i>Army of the Tennessee</i>	<i>Army of Tennessee</i>
June, 1862	62	141
July	62	179
August	70	125
September	92	69
October	80	75
November	62	47
December	45	45
January, 1863	46	44
February	44	44
March	48	65
April	45	80
May	39	100

While the rate of disease was greater in the Army of Tennessee, the Federal authorities state that the death rate was lower.²⁶

Some idea of the amazing number of patients admitted to hospitals in the Confederacy can be gained from the following table from 1861 through 1862 which does not include the Trans-Mississippi Department. There is no breakdown by armies:

	<i>Field</i>		<i>Hospitals</i>	
<i>Diseases</i>	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>
Continued				
fevers	66,746	5,205	40,565	7,020
Paroxysmal				
fevers	115,415	848	49,311	485
Eruptive				
fevers	44,438	1,306	32,755	1,238
Diarrhea and				
Dysentery	226,828	1,696	86,506	1,658
Pulmonary				
infections	43,204	1,653	36,988	4,538
Rheumatism	29,334		30,438	
Gunshot				
Wounds	229,569	1,623	47,724	2,618
Other diseases	324,321	2,278	123,402	1,802
Totals	848,555	16,220	447,689	19,359
Killed in action		8,087 ²⁷		

In judging these figures account must be given to the fact that many cases were transferred from field to general hospitals, and so were counted twice, and the convalescents were transferred from hospital to hospital, and may have been counted more than once.

Account must also be taken of the inexperience of Confederate doctors in filling out forms, which probably resulted in inaccurate reports. This is especially true of the early years of the war. Whatever its inaccuracies, the report does give some idea of the immensity of the sick list in the first two years of fighting.²⁸

Dr. Joseph Jones has said that during a period of nineteen months from January, 1862 to July 1863 inclusive, over one million cases of wounds and disease were entered on Confederate sick books, field reports, and hospital reports. The number of cases treated of wounds and diseases in the next twenty-two months ending April, 1865, affirm that there were more than 3,000,000 cases of wounds and disease during the Civil War. If the number of Confederate soldiers is placed at 600,000, each was treated five times.²⁹

Some further statistics showing comparison in the death rate between the two armies include the following:

	C.S.A.	U.S.A.
Continued fevers	33.27%	22.28%
Malarial fevers	1.15	0.95
Eruptive diseases	5.12	5.27
Diarrhea-Dysentery	1.43	1.25
Pulmonary	18.89	2.34
Rheumatism	1.26	0.14
Others	9.00	1.32

Undoubtedly the lack of clothing and shelter in the field contributed to the high death rate in pulmonary infections.³⁰

Some data on battle casualties of the Confederate Army includes the following:³¹

Year	Killed	Wounded
1861	1,315	4,054
1862	18,582	68,659
1863	11,876	61,313
1864	22,200	70,000
Total	53,973	194,026

Dr. Jones also concluded that the deaths from diseases, wounds, and battlefields amounted to 200,000 men. He said that if those lost to the Confederate cause from discharges and desertion were added, the total would reach 300,000.³²

At Shiloh the following losses were suffered:³³

	Killed	Wounded	Missing
1st Corps Polk	385	1,953	19
2nd Corps Bragg	553	2,441	634
3rd Corps Hardee	404	1,936	141
Reserve Breckinridge	386	1,682	165
Total	1,728	8,012	959

The figures for Chickamauga include the following:³⁴

	Killed	Wounded	Missing	Total
Polk's Corps	442	3,141	531	4,114
Hill's Corps	330	2,456	168	3,004
Walker's Corps	341	1,949	733	3,023
Longstreet's Corps	471	2,887	311	3,669
Buckner's Corps	378	2,566	341	3,285
Total	2,012	12,999	2,084	17,095

If the operations around Chattanooga for the month of September, October, and November are included, total losses for the period were: Killed: 2,728; Wounded: 16,025; Missing: 2,087.³⁵

Figures showing the casualty figures of the advance of the Army of Tennessee into that state indicate the tragic consequences of the action. Before the battles of Franklin and Nashville the army numbered 30,600; after those struggles strength was down to 18,500.³⁶

Figures showing the results of treatments of the wounded are scarce, but one rendered by Surgeon Carlisle Terry of Hindman's Division indicates the following results:³⁷ Wounded: 51; Recovered: 32; Died: 16; Critical: 3.

One figure which held true for actions involving both Northern and Southern forces during the Civil War shows that for every one man killed in battle, 4.5 men were wounded. From this figure can be deducted the tremendous problem of the medical departments.³⁸

4. Summary

The medical record of the Army of Tennessee was good for the most part. As one authority phrases it, "The Civil War took place at the very end of the medical 'middle ages' . . . immediately before bacteriology and aseptic surgery made some of the war generation's triumphs seem piddling or irrelevant."³⁹

The Army of Tennessee began the war with no organization, no transportation, and few trained personnel. In addition, the department was generally self-sustaining. The

medical care could be no better than the medical science from which it originated, but Stout and Foard alleviated the situation through the adaptation of the regulations and knowledge of their times to the peculiar situation which they faced. They provided an administration which functioned very satisfactorily in trying circumstances. Whatever its imperfections, by 1864 the department could adjust from 2,700 patients in May to 22,000 at the beginning of June; and this took place while the hospitals were enroute to new locations.¹⁰

The surgeons and personnel of the army undoubtedly carried some of their hard-won knowledge back with them to their civilian practices, and made it easier to absorb and accept the revolutionary discoveries of Louis Pasteur, Joseph Lister, and Ignaz Semmelweiss.

To the army's commanding generals, Bragg and Johnston, and to Samuel Stout, A. J. Foard, and all the other surgeons, nurses, and other medical personnel of the Army of Tennessee must go credit for a fine performance of duty in the midst of tremendous difficulties.

References

The reader, who has interest in any of the bibliographic references which have been indicated in the five chapters, may obtain these from the author.

(The End)

BOOK REVIEW

HANDBOOK OF POISONING: Diagnosis and Treatment. By Robert H. Dreisbach, M.C., Professor of Pharmacology, Stanford University School of Medicine. Second Edition, 425 pages. Los Altos, Calif.: Lange Medical Publications, 1959. Price \$3.50.

In this publication the author has attempted to present concise summary information in the diagnosis and treatment of clinically important poisons. The need for such books is evident when one considers the rapidly expanding importance of chemical products in industry and in everyday life. The hand-book covers poisons which have industrial, agricultural, household and medicinal importance. Also listed, are some of the natural hazards, such as reptile and insect bites, fish poisoning, etc. For a book of its size and price, one is impressed by the large number of toxic agents included. The method of indexing materials should make the hand-book very usable for the clinician.

The clinical and laboratory findings, treatment and prophylaxis included under each chemical is quite complete. Because of its size, the hand-book can be carried in the physician's bag for ready reference. It does not replace some of the more extensive books available, but has a definite place in modern clinical medicine.

MEDICAL, SURGICAL, AND GYNECOLOGICAL COMPLICATIONS OF PREGNANCY. Edited by Alan F. Guttmacher, M.D., Obstetrician and Gynecologist-in-Chief; and Joseph J. Rovinsky, M.D., Assistant Attending Obstetrician and Gynecologist, both of the Mount Sinai Hospital, N. Y. 604 pages. Baltimore: The Williams & Wilkins Co., 1960. Price \$16.50.

This is an authoritative work which fills a need of long standing. Many authors, each a specialist, have considered in 49 chapters literally all the complications of pregnancy other than those directly concerned with delivery. Editorial care of high calibre is apparent in the absence of any repetition, overlapping or excess wordage. The references are complete, the index is excellent and the format easy to read. The chapters on the eye, neurologic complications and dermatologic complications are particularly commended in a collection of chapters which are all excellent.

This volume represents the outcome of an integrated approach to pregnancy begun when the Mt. Sinai Hospital of New York opened an obstetric division. Each department conducted a clinic specifically devoted to the complications of pregnancy related to its branch, and the experience over the years is reflected in this presentation. The coverage is as wide as medicine itself, yet the discussions are crisp and clinical making this a real source of ready information. There can be no one in practice who will not benefit by examining this book. For the generalist and obstetrician it will be indispensable.

CORRELATIVE NEUROANATOMY AND FUNCTIONAL NEUROLOGY. By Joseph G. Chusid, M.D., Attending Neurologist, St. Vincent's Hospital, New York; and Joseph J. McDonald, M.D., Dean of Medical Faculty, American University of Beirut, Lebanon. Ninth Edition, 337 pages. Los Altos, Calif.: Lange Medical Publications, 1958. Price \$4.50.

This work is not intended as a textbook of neuroanatomy or neurology. In the author's preface, the volume is described as intended for the beginner in neurology and as a handbook to be used for review of neurology, and should be used as a supplement to standard texts.

A tremendous amount of information is compressed into this monograph supplemented with numerous line drawings of anatomy of the nervous system and a lesser number of photographs of pathological specimens.

There are sections on anatomy and physiology of the central nervous system, peripheral nervous system and principles of neurodiagnosis. Other, brief chapters consider congenital defects, infec-

tions, tumors, etc. of the central nervous system. There is a section, illustrated, on muscle examination. Many charts and tables are used to supplement the text. Brief descriptions of many common and uncommon central nervous system diseases and syndromes are to be found.

This book accomplishes the author's purpose marvelously well.

ANNOUNCEMENTS

The Southeastern Surgical Congress

Southeastern Surgical Congress announces the prize scientific paper award contest eligible to residents of approved hospitals in the Southeastern States for the best scientific papers. Papers are due at the Congress office at 340 Boulevard NE, Atlanta 12, Georgia before December 1, 1960. The prize for the first winner is an all-expense paid trip to the meeting at Miami Beach, Florida, March 6-9, 1961, plus a cash award. J. D. Martin, Jr., M.D., Committee Chairman.

Interstate Postgraduate Medical Assembly

The 45th Assembly of the Interstate Postgraduate Medical Association will be conducted in Pittsburgh at the Hilton Hotel, October 31-November 3, 1960. The scientific program is billed as one of the finest teaching programs offered in America. The meeting is acceptable for a maximum 16½ hours of Category 1 Credit by the American Academy of General Practice. For further information, write to Erwin R. Schmidt, M.D., Box 1109, Madison 1, Wisconsin.

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Heart Association's Scientific Sessions, October 21-23, to Include Programs for Clinicians, Dentists, Nurses

The American Heart Association's 33rd annual Scientific Sessions, to be held at Kiel Auditorium, St. Louis, from Friday, October 21 through Sunday, October 23, will present six sessions of broad clinical interest to run concurrently with the investigative scientific programs. Also included are programs of particular interest to dentists and nurses.

Tennessee Society for Crippled Children and Adults

For seven summers it has sponsored a two week camp for crippled children in late August. Enrollment in the past had to be limited due to limited facilities. During the past year a beautiful new camp has been built on Old Hickory Lake near Lebanon. A full 8-week season begins on June 26th in four periods as follows:

- 1st Session, June 26-July 7 (Age 8-16)
- 2nd Session, July 10-July 21 (Age 8-16)
- 3rd Session, July 24-Aug. 4 (Age 8-16)
- 4th Session, Aug. 7-Aug. 18 (Age 16-19)

The biggest problem is to find enough children to fill the camp for 4 periods (256 children, 64 per period). Help is needed by all persons interested in the problems of the handicapped in promoting the camp and persuading parents to apply.

For additional information please notify your local Easter Seal Director, or chairman, or notify the State Office of the Society:

119 17th Avenue, North
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PLACEMENT SERVICE

The placement service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee.

Locations Wanted

A 29 year old married physician. Jewish. Graduate Medical College of Virginia. Desires clinical, assistant or associate practice in internal medicine in east Tennessee community of 10,000 to 100,000. Available immediately. LW-316

A 28 year old married physician. Protestant. Graduate Wayne State University, Detroit. Desires location in Tennessee community of 25,000-50,000 in general practice. Prefers clinical work. Available July 1960. LW-344

A 38 year old married physician. Methodist. Graduate Vanderbilt University. Desires assistant, associate or clinical practice in ob-gyn in east or middle Tennessee community of 30,000-150,000. Available immediately. LW-346

A 29 year old married physician. Methodist. Graduate Medical College of Virginia. Desires private practice in Pathology in east or middle Tennessee community. Will consider assistant or associate practice. Available July, 1960. LW-350

A 36 year old married physician. Baptist. Graduate University of Tennessee. Desires location in small east or middle Tennessee community with hospital privileges for general practice. Will consider clinical or industrial practice. Available immediately. LW-361

A 46 year old married physician. Baptist. Graduate Tulane Medical School. Retiring from military service and desires to establish ob-gyn practice in Tennessee community of 50,000-100,000. Preferably clinical or associate practice. Available fall 1960. LW-364

A 32 year old married physician. Baptist. Graduate Medical College of Alabama. Desires clinical, assistant or associate practice in pediatrics in Tennessee community of 25,000-100,000. Available September 1960. LW-371

A 31 year old married physician. Catholic. Graduate University of Tennessee. Board eligible in general surgery. Desires clinical practice in general surgery in Tennessee community of 25,000 or over. Available July, 1960. LW-372

A 32 year old married physician. Presbyterian. Graduate Tulane University. Board eligible in ob-gyn. Desires associate or clinical practice in ob-gyn in Tennessee community of approximately 50,000. Available immediately. LW-374

A 49 year old married physician. Episcopal. Graduate University of Illinois. Desires private practice in psychiatry in Tennessee community of 10,000 or over. Available immediately. LW-377

Physicians Wanted

Middle Tennessee town, population 1,000 with trade area of 8,000, located 72 miles from large city desires general practitioner for nearly completed \$42,000 clinic. Approximately 32 miles from 3 hospitals. Agriculture and small industry. Excellent high school and elementary schools. Adjacent to one of the state's finest recreational areas. PW-123

Physician in west Tennessee town of 500,000 desires an associate for internal medicine practice. Office space and some equipment provided. PW-126

Physician in middle Tennessee town of 200,000 desires an associate general practitioner. Office space and equipment available. PW-130

Southern Tennessee community of 1,000 desires general practitioner to replace physician who is leaving community to join hospital group in another community. Nearest hospital 15 miles. Office space available. Good location. PW-131

Small central Tennessee community of 1,000 desires general practitioner. No other physician located in community. Fully equipped six room clinic available. Two hospitals totaling 75 beds located 14 miles away. PW-133

Middle Tennessee community of 8,000 in need of physician in the field of internal medicine. Must have 2 years internship and 1 year residency training. Office space located near newly built hospital. PW-136

Pediatrician with 2 years internship and 1 year residency training needed in middle Tennessee community with new hospital. Office building located near hospital. Office furnished except for doctor's private office and examining rooms. PW-137

A small rural middle Tennessee community of 800 in need of general practitioner to replace physician leaving community to enter U. S. Air Force. Office space and hospital privileges available nearby. Near good hunting and fishing area. Good location. PW-139

Internist in large western Tennessee city desires associate. Modern air conditioned office. Complete diagnostic equipment. Adequate technical help. PW-150

Small southern Tennessee community of 1,200, with trade area of 20,000, desires general practitioner. Two other physicians in community. Office space and housing readily available. PW-151

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The shortage of trained psychiatrists is well recognized. However, the need of treatment of the patient as a human unit is also acknowledged. This being true, the responsibility of the family physician in the lesser degrees of emotional disturbance is being emphasized. Postgraduate instruction for the family physician is moving forward rapidly to acquaint him with the mechanisms of the psychiatric interview as well as with psychiatric therapy.

The Responsibility of Physicians in the Treatment and Referral of Psychiatric Patients*

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This title gives latitude to discuss the current trends to acquaint physicians with psychiatric principles and to illustrate their use in assuming responsibility for diagnosis, treatment and patient rehabilitation. It calls attention to the interlocking responsibilities for patient referral between the family doctor and the psychiatrist.

Through various media of communication, we are reminded constantly of a threatened shortage of medical manpower to provide medical care for an expanding population. Psychiatrists make up only 4% of all physicians, so obviously, cannot care for the vast bulk of psychiatric problems that are encountered in medical practice.¹ While the following is a much used statement, it is true that the pediatrician, the internist and the general practitioner are the doctors who usually see such illnesses in their incipency. Thus, not only because of practicability but through necessity, these physicians must assume a greater responsibility for the treatment of certain psychiatric patients. To do so the physician

must be sufficiently well trained to feel comfortable and competent to treat these patients.

Renewed efforts are being directed toward a psychiatric orientation for all physicians, primarily to foster the philosophy of the patient as a human unit rather than a series of diseased organs, or entities. To secure a sample opinion about the adequacy of training and sense of professional competence in psychiatric methods, Lemere and Kraabel² sent questionnaires to 600 members of the Washington State Academy of General Practice. Of the 416 respondents, an average of 60% felt their psychiatric training in medical school was reasonably adequate for their general practice needs. Subsequent postgraduate courses, reading, and especially their own clinical experience, enhanced their competence. Interestingly, the respondents felt able to care for 78% of their psychiatric patients who in turn averaged 24% of their volume of practice. Further, it is gratifying to note that the more recent graduates were better satisfied with their psychiatric training, recognized a correspondingly larger proportion of their practice as psychiatric in nature, and desired to take care of a greater percentage of these patients than did most of the older practitioners.

*Read at the meeting of the Tennessee State Medical Association, April 13, 1960, Nashville, Tenn.

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This study also revealed a desire for further training in psychiatry and parallels a similar surge of interest throughout the medical profession. The American Academy of General Practice in liaison with the American Psychiatric Association, and other organizations like the Southern Regional Education Board, are exploring methods for better utilization of the human and financial resources presently available for postgraduate training in psychiatry.

At the October 1959 meeting of Southern Regional Education Board³ to consider "The Training of Physicians in Psychiatric Principles," it was the consensus that small group seminar meetings held regularly in the practitioner's own locale, and employing his own case material for teaching purposes, are perhaps the most effective teaching method. Dr. T. A. Watters, a psychiatrist in private practice in New Orleans, has directed such a group which has held weekly meetings over a period of five years. Dr. Michael Balint⁴ consulting psychiatrist to the Tavistock Clinic in London, has described comparable seminars which were started ten years ago. At present a dozen groups are being taught at the Tavistock Clinic with 120 participating physicians. Seminars of similar nature are being established in several metropolitan areas. The prerequisites for success are dedicated supervisory psychiatrists and interested physician trainees who can tolerate the grind and stress of these prolonged courses.

Of many other suggestions for postgraduate training discussed at the Southern Regional Education Board meeting, the proposed program in Minnesota can serve as a model for other areas. A series of seminars for general practitioners will be conducted simultaneously in different parts of the state. This undertaking is guided by an advisory committee of representatives from state medical and psychiatric groups, the university and other organizations. It is under the direction of the State Department of Welfare and is a coordinated effort designed to include all existing state resources which can be used for psychiatric teaching. It has the active support and participation of the State Medical Association, the Medical School, the Mayo Clinic, the State Psychiatric Association and psychiatrists from

the State Hospitals and those in private practice.

The time honored, though not very practical, short postgraduate courses conducted by Medical School faculties, or staffs of psychiatric hospitals, are losing vogue. Several State Academies of General Practice still desire and do sponsor one or two day short courses in collaboration with psychiatric groups. The Texas Academy of General Practice, for example, will hold one day courses this year in three regions of the State with the faculties to be drawn from the three medical schools of the State. The contents are about par for courses of this type. Subjects vary from management of the alcoholic in the community, psychiatric emergencies, the suicidal patient, emotional problems of children and the aged, proper use of drugs in mental disorders, on to cursory comments on office psychotherapy.

It is readily apparent that the technics of psychotherapy cannot be learned in this manner. Even the long term group seminars of Balint and Watters leave much to be desired for learning psychotherapy, however, the group sessions do assist the physician to an understanding of his own emotional needs and patterns of reaction that are so essential in relating well to any patient. For that physician who deflects from general medicine and plans to seek intensive psychiatric training, the National Institute of Mental Health provides yearly stipends up to \$12,000 for each of three years in an approved psychiatric residency.

Before leaving the subject of training in psychiatry, attention is called to the frequency with which psychiatric subjects are being included on programs of general medical meetings at local, state, and national levels. In some centers closed circuit television programs are presented to special group (county medical and hospital staff) meetings. Some good training films exist and nontechnical psychiatric books and periodicals are published in ever increasing numbers. It is hoped that suitable, definitive methods of imparting workable psychiatric knowledge will soon be readied for the nonpsychiatric physicians. In the meantime the physician's most pressing responsibility is to avail himself of every oppor-

tunity to improve his psychiatric armamentarium.

The Psychiatric Approach and Interview

The mere assumption of responsibility for treatment and referral presents an opportunity to play a paramount part in prevention of psychiatric disorders. Diagnostic acumen is vital at this point. The patient comes to the doctor while his symptoms are still early and unfixed; it is his prerogative to diagnose these first signs of emotional stress to head off major trouble. He must have the knowledge and skill then to proceed with a detailed examination, arrive at a positive diagnosis, and determine the most advantageous line of treatment.

Actual categorical diagnosis is unnecessary for proper treatment or referral. Speaking before the Milwaukee Chapter, American Academy of General Practice, Osborn⁵ observed: "There has been uneasiness about psychiatry because *its content and method* have not appeared easily reconciled with the clinical methods and techniques which have been so effective in dealing with infectious, metabolic, nutritional, and other diseases." This uneasiness may exist in the inexperienced clinician and conscientious efforts must be made to perfect diagnostic skills. Textbook psychiatric examinations are too technical, detailed and time consuming for the busy practitioner and his equally busy patient. The patient in turn may not understand such proceedings and become alarmed at prolonged interrogation. With patience and thought, each physician can incorporate certain pertinent questions and diagnostic procedures into his routine office history and examination that will detect the very common psychophysiologic reactions, as well as the more obscure psychiatric disorders. The clinician must learn not only how, when and why, to ask questions, but also to listen for undulating emotional overtones as the patient unravels the history of his illness. He should watch for facial expressions and body movements, both during the interview and the examination. These aberrations do appear while reciting emotionally painful material. Also, the examining physician must be alert to the mechanism of denial sometimes encountered in the presence of severe organic

disease. These disturbed people are seeking reassurance that they have no serious organic disease. In an attempt to cover their major concern they may describe some trivial complaint or even insist that their symptoms are emotional in origin.

Although exclusion technics are used in the differential stages, positive identification must initiate the true diagnosis of a psychiatric disorder. The physician must not deceive himself, nor should he try to convince patients with such reasoning as, "I can find no pathology on physical examination, and all diagnostic tests are negative; therefore, your symptoms must be emotional (never use neurotic) in origin." A psychiatric disorder does not preclude the presence of physical disease, or admixtures of physical and emotional disorders. Co-existing physical disease must be corrected but the patient should not be permitted to believe this will cure symptoms caused by emotional stress. Every patient should have a thorough physical examination. For the patient, it means that the physician is interested; it is of specific reassuring value for the anxious, "somatized" patient. For the physician it means a satisfying complete medical study and helps to gain the patient's confidence. Even with a positive psychiatric diagnosis routine laboratory tests are indicated. There are exceptional circumstances, but most special tests are harmful as more anxiety is induced and leads to fixation of symptoms. They are also inconvenient and expensive for the patient.

Psychotherapy

Following the diagnosis of a psychiatric reaction, the physician must either assume responsibility for treatment or decide to refer the patient. Diagnosis, management and treatment cannot be neatly compartmentalized in practice, nor do they always follow in sequence. Treatment often begins with the patient's decision to take his troubles to "the doctor," and continues as he phones for an appointment and comes in to the office for his first visit. Management and treatment will be discussed under three interrelated headings. First comes the physician-patient relationship; next, the physician-family relationship, and finally, environmental manipulation.

The physician-patient relationship is an area of advantage for the family physician. Based on a tradition of respect and affection, he already has the confidence of his patient (an interpersonal relationship which is sometimes difficult for the specialist to establish). In this one to one contact the physician's prestige is a prominent therapeutic tool. To illustrate, Bartemeier⁴ has quoted patients as saying, "Doctor, you are my best medicine."

It is beyond the scope of this discussion to delve into the dynamics of psychotherapy, but time will permit a few general suggestions and observations. The physician must first consider his responsibility to himself. He needs a workable knowledge of the autonomic manifestations of persistent anxiety and emotional tension, and of the motivations of behavior. He should be familiar with the mechanisms of rationalization, displacement, conversion, projection, denial, and symbolism, to name a few mental mechanisms which constitute the defenses of the personality against overwhelming anxiety. The clinician must remember that doctor-patient contacts can never be completely objective. To quote Bartemeier again⁴ "In sickness many people undergo a psychological regression to earlier periods of emotional experience, and every patient-doctor relationship is, to some extent, re-experiencing of the child-parent relationship. Sick people are often frightened and helpless and dependent like children. For them the physician is a substitute parent-person possessed of medical knowledge and skill," (also endowed with special healing and comforting powers). Physicians must guard this precious heritage and not permit it to be distorted. Through old fears, wishes, dependency needs, or expectations, the patient may unconsciously alter the phenomena into a hold-over parent-child relationship whereby the doctor becomes a leaning-post in fact. He may come to represent a love object and become the recipient of unconscious sexual feelings, or an actual acting out of such urges.

The opposite reaction in psychotherapy, sometimes called counter transference in our psychiatric jargon, and of equal importance in the patient-doctor equation, is

the doctor's feelings toward the patient. Physicians must have some insight into their own mental mechanisms and guard against over-identification with, or antagonism toward, patients or the patient's family. Psychotherapy takes time, and it is well to set aside certain days to see patients by appointment and preferably in a relaxed atmosphere. Improvement in the individual's psychotherapeutic technics will reduce the amount of time spent with each patient. It is the attention, interest and understanding of the clinician, and not necessarily the amount of allotted time, that is so important to successful short term psychotherapy. The physician is entitled to proper remuneration for this extra time for psychotherapy. If the matter is discussed in advance with the patient or the family, the extra fee usually is accepted by them.

One of the areas in which the doctor-patient relationship can be jeopardized is the failure to inform the patient of the findings in the case study. If the physician concludes that the illness is psychogenic in nature, it is best to be frank and tell the patient immediately, but with finesse and reassurance tailored to the individual patient. Should it appear that such a diagnosis will be unacceptable, it is better to leave such loop-holes as, "I plan to send you to the laboratory for tests. (Those deemed necessary.) However, from consideration of the type of symptoms you have described, and from the problems you say you are having (at home, at school, on the job, *et cetera*) it is obvious that you have been under emotional tension. I think we should investigate the effect these tensions have exerted on your health."

The patient who comes to the office with the statement, "My family thinks my illness is in my head," can be approached in a different way. Sympathetic, noncritical questions may open the flood-gate with an outpouring of many troubles and the patient can be led on to a personal discovery of the origin of his own illness. The technic for getting a patient to recount recent or existing stressful situations, or traumatic events in childhood, does require practice, and becomes an individual maneuver with each physician. Most patients will "block," or give ambiguous answers to such direct

questions as, "Are you having trouble with your wife?" Thus, it is best to commence with general questions and proceed with more leading questions later in the interview, or in succeeding ones. *The art of listening is a difficult one. It is so much easier to advise.* Abreaction or ventilation of emotionally charged memories has a distinct therapeutic value. The patient is made to feel that it is permissible, even desirable, to bring out his anger, or grief.

Group psychotherapy, a somewhat new approach for the nonpsychiatric physician, will be useful in some situations. In geriatrics, for example, groups of old people have so many problems in common that under the direction and counselling of a physician, they are able to help each other resolve stressful situations. This method can be applied to other groups having common age ranges, symptoms, marital or work problems. As previously stated, when used as a postgraduate training procedure it has a personal psychotherapeutic, in addition to a learning value for the physician.

The parade of new psychopharmacologic drugs and improved physical procedures, furnish an increasing array of specific, or adjunctive treatment methods for psychiatric patients. Tranquilizers and sedatives prescribed for excessive anxiety, psychomotor tension, restlessness, irritability, or tension headaches, do give symptomatic relief and often render patients more accessible to psychotherapy. Always be aware that some drugs, as the phenothiazine derivatives, produce side effects as motor restlessness and inner jitters; thus creating more anxiety for the already anxious patient. Antidepressants, or energizing drugs as Catron, Marplan, Niamid, or Nardil, can diminish, or even cure, the symptoms of a depression. Again, these drugs must be administered judiciously for they possess undesirable side effects and have limitations. The age of the simple, economical sedative is not *passé* for sedatives still have specific symptomatic value.

There are dangers inherent in the use of Sodium Amytal or Pentothol interviews and of hypnosis. If used for psychiatric patients care must be used in the selection of the patient so that removal of a symptom does not release excessive, unbound anxiety to

induce suicide, homicide, or a psychosis. Certainly, electroshock, insulin, or other drug induced shock therapies, should be reserved for the trained psychiatrist. These treatments are best administered in hospitals having the personnel and equipment to handle any complication.

After the one to one doctor-patient equation, the next level of management responsibility centers on the physician and family. The family doctor has the advantage of a long standing friendship plus knowledge of the positive and negative factors in the stress economy of the family. Wherever possible, the patient's illness should be explained to his family so they may accept, or be more tolerant of unusual complaints or behavior. The family is instructed to be encouraging, reassuring and as supportive as possible (toward the patient) without being maudlin or overprotective. Stress producing situations in the home should be investigated and remedied when possible. If not, an attempt must be made to change the patient's attitude so he can accept that stress or react to it in a different manner. All too frequently other members of the family need help even more than the patient. Especially is this true of the emotionally disturbed child, since the child's problems cannot satisfactorily be separated from those of the family where the mother and father need more guidance than does their problem child. At least all three of them must be involved in the therapeutic sessions. Likewise old folks, who live in the homes of their children, tend to react to the poorly repressed hostility of their children. Once more, the physician must be aware of these circumstances and be sure he is treating the right patient. Finally, it is the physician's responsibility to advise the family when the patient refuses needed hospitalization, or where there are suicidal or homicidal threats and where prompt attention, or other emergency measures must be taken to prevent chronic illness or loss of life.

Environmental manipulation is the third avenue of treatment for selected psychiatric patients. The patient's environment encompasses the many areas of his daily living: such as, the economic situation, work, housing and neighborhood, churches, cultural

standards, daily habits and routines, and health factors. This gives the physician a wide field in which to work and may extend from making a personal loan to tide the anxious patient over financially, to a request that local authorities remove an alcoholic patient from the local brig to the local hospital.

Practically, the amount of community help available to the physician will depend on the resources at hand. While large cities offer the services of trained professionals as psychiatric nurses, social workers, and social agencies, there are regional State Welfare and Rehabilitation Agencies in most all areas. Nonprofessional assistance from ministers, church or fraternal groups, friends, fellow workers, the boss and others, are readily available in any community.

Many communities are organizing clubs or interest groups for oldsters. Law enforcement officers, social service agencies and visiting nurses, educators and such organizations as Alcoholics Anonymous, give assistance to the emotionally disturbed patient. Employers are usually willing to cooperate with physicians to improve working conditions of patient employees. Waggoner⁷ very aptly sums up this facet of treatment with, "The *proper understanding* of the patient's problems, particularly by the family, but also (such an understanding) by school contacts, or by work supervisors, is more important than just making a change in these factors."

These attitudes and resources represent some of the advantages for treating patients in their own community. Patients retain their feeling of belonging to a group and are not required to sever the bond of dependence with the family doctors. If hospital care is required, the patient may be familiar with the local hospital, perhaps have friends among members of the staff, and can be visited frequently by relatives and friends. Where visitors were once excluded from psychiatric hospitals, it now is recognized that maintenance of these ties has definitive therapeutic value. The ever increasing number of psychiatric units or beds, set aside for psychiatric patients in general hospitals, along with the decreasing census in the legendary, custodial state hospitals, serve as convincing testimony to the

soundness of community oriented treatment programs.

Referral of Psychiatric Patients

The responsibilities of the various physicians involved in referral is to be considered next. When and how should the nonpsychiatric physician refer a patient to a psychiatrist? What are the psychiatrists' obligations to the patient and to the referring physician? When to refer cannot be answered in a categorical fashion. Some clinicians like to refer all psychiatric patients either because they feel improperly trained to care for them or because he is not motivated to administer psychotherapy. He does not "like to deal with nervous people."

Patients with acute psychotic reactions and suicidal depressions should be referred at once for hospitalization and definitive treatment. Where there must be a waiting period, the patient can be kept under control by heavy tranquilization with the more potent phenothiazine drugs. Preferably, a patient with a toxic delirium is to be handled in a general hospital by the local physician. True endogenous depressions of several months duration are best treated by the psychiatrist. Electroshock is a specific for endogenous and psychotic depressions. Alcoholics, or addicts, are subjects for referral, although many acute alcoholics can be managed on the medical service with the cooperation of the family and friends.

Patients under psychotherapy who show signs of decompensation into a psychosis, or those who have failed to respond after a few months of psychotherapy and adjunctive drug therapy, are candidates for referral. In the latter cases the failure for rapid response may have mobilized the physician's own anxieties. A mere discussion of the case with the psychiatrist can bolster the physician's defenses to carry the case to a successful conclusion. Pronounced phobic and obsessive compulsive psychoneuroses give frustrating results at the best, and should be referred early for more intensive deep psychotherapy.

There are a few worthwhile suggestions for the physician to follow in preparing for psychiatric consultation or referral. First, the psychiatrist should be consulted before the patient is advised of the physician's de-

cision to do so. The psychiatrist may have an overload of patients, hospital beds may not be available, or he may be unable to see the patient for some other reason. He should never refuse to see the patient because of a preformed opinion that the patient is unsuitable for treatment. There are times when a brief conversational outline of the history and progress of therapy to date may indicate to the psychiatrist that the patient should remain under the care of his family physician. If the physician needs further assistance with management of this patient, he can obtain additional advice by letter, by telephone, or by an appointment with the psychiatrist at some mutually convenient time and place. Once the referral is completed, the psychiatrist can profit immeasurably by a written resume of the family doctor's knowledge of the patient's life history, known stressful factors and the results of the pertinent physical and laboratory findings.

The referring physician's next important step is to inform the patient of the need for a psychiatric consultation. When dealing with understanding, cooperative patients, the physician should explain his reasons for wanting the patient to see a doctor with more experience in treating emotional illnesses. Indicate that the psychiatrist will have the time and special skill to help the patient to a better understanding of his problems. It is unwise to tell the patient that he is being referred for a specific type of treatment when such treatment might turn out to be unsuitable for that person. Patients should be encouraged to ask all questions necessary to satisfy them of the wisdom of the physician's action. Sometimes patients will refuse to see a psychiatrist. The unrecognized emotional attachment to the family physician may be of such intensity that they are unable to leave his care and may delay immediate departure for a period of more gradual leave taking. When in doubt about the patient's reaction, the family should be told of the prospective referral before it is broached to the patient, because they can prepare the patient to accept the needed treatment. Many patients need to be reassured that the psychiatrist is not a bogeyman. The prospect of entering a strange hospital, especially a psychi-

atric institute, may raise the spectre of commitment to a mental hospital. Explanation and reassurance is in order.

Now turn to the obligations that the psychiatrist has to his "captive patient" and to the referring physician. Under the circumstances involved in most referrals, the patient does not have the privilege of free choice of the specialist; although he has the right to refuse the consultation. The patient is entitled to know in advance the cost of hospitalization and the psychiatrist's fee. Fortunately, the daily cost of psychiatric hospital care is less than that for other medical services, and coverage of psychiatric illnesses is becoming a part of most hospital insurance plans. As soon as a definitive treatment program is decided and some estimate made of the probable time required for recovery, this information is to be given to the referring physician for transmittal to the patient's family.

On the whole, psychiatrists are poor at communication and probably deserve the criticisms of other members of the medical profession. Too many psychiatrists remain isolated from their colleagues. Individual psychiatrists need to take an active part in the affairs of the medical community and should attend hospital staff meetings and the county society medical meetings. With the development of psychiatric in-patient services in general hospitals, many psychiatrists now come into closer personal and professional contact with their fellow practitioners.

On the question of proper reports to the referring physician, Lemere and Kraabel² found that 72% of referring physicians were dissatisfied with the paucity and quality of psychiatric reports. Progress reports should be sent to the referring physician and to the family. Reports are to be written in medical, rather than psychiatric, terminology. Dismissal reports for the referring physician should contain a resume of the hospital course and treatment, the mental status of the patient at the time of dismissal, and suggestions to guide the family doctor in the patient's rehabilitation.

The report of a courageous psychiatrist might delineate the goals of successful treatment in terms of to what the patient can look forward; what their families and

friends may expect; and when the physician can enjoy the rewards of a job well done. Appel and Schefflen¹ define successful treatment as follows: "Except in unusual situations we would not consider psychotherapy successful unless the patient, if a man, had found gainful and useful employment, anchorage, or a place where he could belong; and friends, adequate relationships with other persons, and some philosophy of life." Similarly, women patients are expected to assume full household responsibilities, or else be able to return to employment outside of the home, and to re-establish satisfactory interpersonal and social relationships.

Rehabilitation of the Patient

The final responsibility of the psychiatrist and family doctor is to collaborate in the patient's full rehabilitation. Appel¹ reports that a quarter of a million patients are released from psychiatric clinics or hospitals each year, and their ultimate rehabilitation presents a problem to the local physicians. It is said that the use of new drugs has increased the discharge rate. In addition to advising about proper drug dosage, the family physician must help the patient maintain his mental health, and provide him with the same medical services he offers the community as a whole. Most of these patients should continue regular visits to the physician's office or the mental health clinic,

until recovery is attained in terms of Appel's previously defined goals. Relapses are to be expected and, if severe, the psychiatrist can be consulted again. Where necessary, the physician must take the initiative in social and economic rehabilitation. As stated earlier there should be no hesitancy in calling on all available community resources to promote the patient's personal and economic stability to assume his rightful place as a contributing member of the community.

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The diagnosis of pernicious anemia is difficult after the patient has had "shot-gun" hematinics without study. The proper diagnosis is important, however, since relapse may be delayed months or years after cessation of therapy. The Schilling test as described here offers a means of establishing a diagnosis even if treatment has been given.

The Value of Cobalt-60-B₁₂ Uptake in the Diagnosis of Pernicious Anemia in a Small Hospital*

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The availability of vitamin B₁₂ labeled with a radioactive tracer has greatly simplified the diagnosis of pernicious anemia. In the past this diagnosis could be firmly established only if the patient exhibited typical changes in peripheral blood and bone marrow, histamine achlorhydria, and showed a reticulocyte response to the parenteral administration of vitamin B₁₂ or liver extract. The characteristic marrow and blood changes are masked by the administration of vitamin B₁₂, whether by prescription in "shot-gun" hematinics or by self-administration of vitamin mixtures. Indeed, many such patients will maintain their relatively normal status for months to years after cessation of B₁₂ therapy. With isotope techniques we are now able to evaluate the fundamental defect responsible for pernicious anemia (the absence of gastric intrinsic factor) in spite of persisting B₁₂ therapy. The test is simple to perform and does not depend upon subjective evaluation of cellular changes, but instead presents an objective number. The test is readily carried out on either an inpatient or outpatient basis and thus is available to hospitals of any size, provided only that the hospital has on its active or consultant staff a physician who is licensed in the use of radioisotopes and who has access to appropriate counting equipment. Indeed, many of the diagnostic tests

using tracer amounts of radioisotopes can be carried out in the 30 to 50 bed hospital if they have a visiting pathologist who can train the technical staff in the administration of the isotopes and the collection of the appropriate samples for counting. The isotopic diagnostic procedures use such low levels of radioisotope that there is no radiation hazard to technologists, patients, or nursing personnel.

Use of a modification of the vitamin B₁₂ excretion test, originally proposed by Schilling¹, has been quite satisfactory in our hands. The following cases are reported to illustrate the value of the procedure, possible pitfalls, and some of the potential by-products of this test. These patients were studied initially between June, 1958 and March, 1960.

Materials and Methods

Isotope. For the past two and one-half years we have used commercially available vitamin B₁₂ labeled with cobalt-60. The capsules are precalibrated and serial counts on all capsules have failed to reveal evidence of inaccuracy of calibration. The capsules contain approximately 0.5 micrograms of vitamin B₁₂ labeled with approximately 0.5 microcuries of cobalt-60. The isotope has a half life of five years, thus making it economically feasible to purchase lots of 25 capsules. In this way only one capsule is required for the preparation of the standard to be used for 24 test doses, making the cost of the standard almost negligible. To prepare the standard, dissolve one capsule in 100 ml of warm water. Ten milliliters of

* Read at the meeting of the Tennessee Society of Pathologists, April 11, 1960, Nashville, Tenn.

† From the Pathology Laboratory, Oak Ridge Hospital of the Methodist Church, Inc., Oak Ridge, Tenn., under contract with the United States Atomic Energy Commission.

this solution are diluted to 1000 milliliters and used as the "10% standard." A 5% standard, similarly prepared, may be helpful to provide lower counting rates if urinary excretion is low, or if the urine volume is large.

Administration. The patient is fasted after midnight. In the morning the capsule of cobalt-60 labeled B₁₂ is given and the 24-hour urine collection is begun at this time. Two hours later the patient is given 1000 micrograms of vitamin B₁₂ parenterally. After the parenteral medication the patient may have breakfast but should avoid (significant) sources of vitamin B₁₂ such as in eggs. The 24-hour urine specimen is subsequently sent to the laboratory for counting. If vitamin B₁₂ excretion is below 8% of the dose, the test should be repeated in exactly the fashion outlined except that a capsule of intrinsic factor is given orally along with the capsule of cobalt-60 labeled vitamin B₁₂.

Counting. The volume of the 24-hour urine sample is determined as well as its specific gravity. The latter may assist in an evaluation of completeness of the collection or may give a clue to the presence of renal disease that could invalidate the results. If the volume is less than 1000 milliliters, it is diluted to this quantity and the entire specimen is thus counted. If the volume exceeds 1000 milliliters, a one liter aliquot is used for counting. The urine sample as well as the standard preparation are counted in discarded intravenous infusion bottles. The standard bottle is kept as long as the lot of isotope is in use, the urine sample and bottle are discarded after the count is complete. For the first year covered by this report, the counts were obtained by placing the bottle on top of a one-inch scintillation probe, using a scaler without pulse-height discrimination. More recently we obtained a spectrometer and well counter. It has been found that the greatest counting efficiency was obtained with the liter bottle on top of the well crystal; the volume which could be placed in the well is too small to give adequate counts. The spectrometer is set so all pulses above 1 Mev are counted; thus both the 1.17 and 1.33 peaks of cobalt-60 are included and Compton scatter is eliminated. The background count is determined by using a similar liter bottle filled with

tap water set on top of the well crystal. Samples and the standard are counted until at least 10,000 counts are obtained, or until one hour elapses.

Calculation. These involve a simple proportion comparing the number of net counts (counts per minute minus background) of the 10% standard to the number of net counts of the urine sample $\frac{(C_{std})}{(10)} = \frac{(C_{pt})}{(x)}$. This yields the percentage of dose in one liter of urine; if the 24-hour volume exceeded one liter, the result must be corrected by multiplying by the number of liters obtained.

Results

The results obtained in 18 patients are presented in Table 1. Follow-up data from the referring physicians indicates that the clinical course substantiates the results of the vitamin B₁₂ excretion test with the exception of patient F.J. who has been lost to follow-up.

Discussion

With any laboratory test certain precautions must be observed to avoid misleading results. If there is an extremely low excretion of isotope, as in patient L.S., one may wonder if the dose capsule was ingested. In this case collection of stool samples revealed abundant cobalt-60.

It is also necessary to be certain that all the urine is collected for a period of 24 hours. One of these patients (E. McK.) was incontinent and an indwelling catheter was inserted for the duration of this test. This certainly should be done in any patient who is uncooperative or irrational.

The group of patients listed as "Mal-absorption, etc." are those with decreased absorption of vitamin B₁₂ which is not corrected by the administration of intrinsic factor. These patients have some type of intestinal defect in absorption other than pernicious anemia. Other absorption studies, such as with radioactive triolein or trioleic acid, should be pursued in this group of patients.

We were fortunate in that the first patient studied with this technic (B.K.) proved to be a fairly classical example of folic acid therapy of previously undiagnosed perni-

Table I

Patient	Sex	Age	Chief Complaint	HGB (Gm. %)	PCV	RBC x 1000	MCV	MCH	MCHC	B ₁₂ Uptake, % of Dose	B ₁₂ + Intrinsic Factor, % of Dose	Remarks
PERNICIOUS ANEMIA												
B.K.	M	32	Fatigue, incoordination	11.8	36	3,330	107	35	32	3.7	19.0	Marrow—no megaloblasts
R.W.	F	44	Auto accident	7.9	25	—	—	—	30	1.8	14.7	Previous hemigastrectomy
R.A.	M	59	Weakness, fainting	2.7	11	64	*	*	25	0.7	3.3	B ₁₂ not repeated because of age
C.S.	F	80	Weakness, pallor	6.1	23	2,300	100	26	27	3.1	—	
*inaccurate at these levels												
MALABSORPTION, ETC.												
E.McK.	M	77	Weakness, incontinence	4.5	14	—	—	—	33	4.8	3.1	Marrow-erythrocytic and granulocytic hypoplasia
L.S.	F	61	Weakness	10.7	35	—	—	—	31	1.0	0.2	Polyuria-emotional problems
O.O.	F	66	Pyuria, arthritis	10.7	35	3,430	102	31	31	7.3	5.9	
A.C.	M	49	Weakness, rib fracture	10.7	36	3,200	111	33	30	5.3	6.9	
K.P.	F	64	Joint pain, dizzy spells	5.0	19	—	—	—	26	7.6	9.8	Marrow megaloblastic, Free HCl after histamine
NORMAL B ₁₂ EXCRETION												
C.C.	M	53	Weakness, petechiae	8.8	30	—	—	—	30	10.3	—	Marrow-pancytopenia, patient died
W.A.	M	50	Weakness	13.0	41	—	—	—	34	15.6	—	Degen. disease, CNS serology neg.
R.M.	F	65	Nausea, vomiting	12.2	40	—	—	—	31	14.9	—	Functional bowel distress
M.T.	F	50	Anemia, diarrhea	9.6	30	3,025	100	32	32	18.4	—	Marrow-granulocytic hyperplasia Marrow-normoblastic serum iron—16 mcg. %
A.W.	F	44	Fatigue, malaise	10.4	35	—	—	—	30	14.8	—	
F.J.	F	67	Weakness, weight loss	12.0	36	3,300	109	36	33	20.3	—	
B.G.	F	47	"Sick for years"	9.9	33	3,450	98	29	30	19.5	—	
C.H.	M	53	Weakness, dyspnea	6.0	24	—	—	—	25	12.1	—	
R.W.	M	38	Anemia, refractory to iron	9.5	32	3,200	100	29	30	8.1	—	

cious anemia. The patient had loss of vibratory sensation, histamine achlorhydria, but a rather mild anemia. The bone-marrow on this patient was atypical in that no megaloblasts were to be seen. Perhaps this is attributable to the previous folic acid therapy. He has done well on parenteral administration of vitamin B₁₂ every two weeks and currently his hemoglobin is 13.5 Gm. In contrast, patient K. D. had a typically megaloblastic bone marrow, one which I would not hesitate to use in teaching residents or students the appearance of the marrow in pernicious anemia. This patient, however, had no significant augmentation of B₁₂ uptake with the use of intrinsic factor. The patient also had free acid in the gastric juices after histamine stimulation. Patient C. S. was not completely worked-up because of advanced age. The attending physician believed the patient probably had pernicious anemia and that it was simpler to

treat the patient with B₁₂ than to pursue the one additional diagnostic step; namely, the administration of labeled B₁₂ with intrinsic factor.

It is said that decreased renal function will result in decreased secretion of the absorbed radioactive B₁₂. In this series, in several instances, a second 24-hour urine specimen was obtained and these have all failed to contain significant quantities of radioisotope. Still, this possibility should be borne in mind, particularly if the NPN. is elevated. In these instances a 48-hour urine collection would be indicated.

Patient A. C. yielded a 24-hour urine volume of nearly 5,000 milliliters. Unfortunately, the implications of the polyuria were not pursued. Nevertheless, this does constitute an interesting by-product of the examination. Without the B₁₂ test the increased 24-hour urine volume would probably not have been discovered.

Summary

The results of a modified Schilling test for pernicious anemia in 18 patients has been presented. In general, the subsequent clinical status of the patient agrees with the results of the Schilling test. Possible sources of error are discussed. In addition, occasional patients may yield findings suggestive of other illnesses that might not be discovered without this diagnostic study. It is noted that this test is suitable for hospitals of any size as well as for outpatients, pro-

vided only that the consultant physician be licensed for the use of radioisotopes.

Acknowledgments. The author wishes to thank the following physicians: J. P. Crews, J. D. DePersio, J. L. Diamond, T. G. Fortney, J. M. Hays, P. R. Marsh, and H. M. Rossman for requesting these studies and providing follow-up information.

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CLOSED-CHEST CARDIAC MASSAGE. Kouwenhoven, W. B., Jude, James R., and Knickerbocker, G. Guy, J.A.M.A. V. 173:1064, 1960.

The authors have developed a new technic based on an old concept for the restoration of circulation following the development of cardiac arrest, either due to ventricular fibrillation or standstill. These workers had found that the application of the closed-chest alternating current defibrillator was effective only if the countershock was applied within less than three minutes after the onset of ventricular fibrillation. The present study had been undertaken in an attempt to extend this time period. Boehm, in 1878 had been able to maintain cardiac function in cats by the rhythmic application of pressure over the chest. The present study was first conducted in dogs with induced ventricular fibrillation and the results were so encouraging that the method was applied in man.

The method of closed-chest cardiac massage is very simple and requires no complex equipment. Only the human hand is needed. With the patient supine, preferably on a rigid support, the heel of one hand with the other on top of it is placed on the lower end of the sternum. Firm pressure is then applied vertically downward about sixty times per minute. The operator should be so positioned that he can use his body weight in applying the pressure and so as to move the sternum for approximately three or four cm. toward the vertebral column. Originally, the method had been thought to be successful only in small children with flexible ribs, but it was soon found

that the chest of the unconscious adult was remarkably flexible.

The authors have applied this method on 20 patients, aged from 2 months to 80 years. In 13 of these patients, artificial respiration was applied simultaneously and the mouth to mouth method is recommended. Blood pressure measurements were obtained during periods of cardiac massage and were found to range between 60 and 100 mm. of mercury, thus demonstrating the effectiveness of the method in maintaining vital circulatory activity. Three patients with ventricular fibrillation were all effectively defibrillated by the application of the A. C. defibrillator shock. All 20 patients were resuscitated and 14 were alive without evidence of residual central nervous system damage at the time of the report.

Brief case reports are presented to illustrate the successful use of this method in cases of anesthesia induced cardiac arrest and in one case of myocardial infarction with ventricular fibrillation.

This method of dealing with cardiac arrest would appear in most cases to be vastly superior to the open cardiac technic. In the author's hands it has provided adequate circulation to maintain the heart and nervous system while supportive drug or other measures, including electrical defibrillation, are being applied. The real value of this method lies in the fact that it can be used wherever the emergency arises, whether in or out of the hospital. (Abstracted for the Middle Tennessee Heart Association by Fred Cowden, M.D., Nashville.)

There are differences of opinion relative to early curettement for infected abortion. The authors present their excellent results in doing so.

Infected Abortion Treated by Immediate Curettement*

H. E. ATHERTON, M.D., and JOHN B. KIEKLEY, M.D., Memphis, Tenn.

Infected early incomplete abortion comprises one of the more formidable and not infrequent problems which the obstetrician treats. On our service there recently has been a reversal in the trend from conservative management, during which the uterus spontaneously empties, to a more radical one where the uterine cavity is entered and evacuated with a curet.

This report comprises a group of patients with infected early abortions in whom curettement with a sharp curet was done immediately upon admission to the hospital. Antibiotics were administered subsequent to the operation, although Turksoy¹ reports good results by administering antibiotics first and delaying the operation.

Material and Method

At Baptist Memorial Hospital, Memphis, from January 1954 to August 1959, 350 private patients had immediate curettement of the uterus on admission for early incomplete abortion. Thirty-three of these were infected, an incidence of 9.4 percent. All 33 of the patients with the infected abortions were immediately curetted with a sharp curet on admission to the hospital and operating room. Intravenous Sodium Pentothal anesthesia was used for all patients. Several had sponge-stick exploration before using the curet. All had a temperature above 100.4, an elevated pulse rate, leukocytosis, and no source of infection other than the birth canal. Some had a history of fever and chills before admission. There were instances of criminal interference but

this could not be assessed accurately. Foul lochia was present in several patients, but this was not regarded singularly as an expression of infection.

The group consisted of 6 primiparas and 27 multiparas, ranging in age from 18 to 37 years. The length of gestation varied from 4 to 16 weeks. The highest temperature recorded was 102.4. Hemorrhage requiring transfusion was present in 6 patients. Two of these were in hemorrhagic shock. Eight uteri were packed and the pack removed in twenty-four hours.

All of the patients were given two or more of the following drugs in therapeutic doses after the operation: penicillin, streptomycin, tetracycline, chloramphenicol, and sulfisoxazole (Gantrisin). These were continued until the patient was afebrile.

All were placed on bed-rest and given adequate hydration and nutritious diets as tolerated.

Results

No serious postoperative complications were encountered, except parametritis in 2 patients one of whom had signs of peritoneal irritation. Both of these patients had iodine injected into the uterus in an attempt to produce abortion. They were quite ill on admission, but had a smooth convalescence after removing a foul necrotic, iodine stained product of conception with a sponge forceps followed by curettement.

The temperatures fell by lysis with daily spikes, and most of the patients were afebrile after the third postoperative day. The longest postoperative residence in the hospital was 7 days with an average of 3 days.

All patients had follow-up examinations by their private doctor and none had any significant residual pelvic infection.

*Read at the meeting of the Tennessee State Obstetrical and Gynecological Society, April 12, 1960, Nashville, Tenn.

†From the Department of Obstetric and Gynecology, University of Tennessee College of Medicine and the Baptist Memorial Hospital, Memphis, Tenn.

Discussion

Within the endometrial cavity that contains an infected abortion there is a very good culture media for a host of varied bacterial flora, with temperature and oxygen requirements ideal for proliferation. Bacteria and liberated toxins may spread into the uterine wall and via lymphatics and blood vessels to pelvic and remote areas of the body. The retained abortus acts like a foreign body and blocks drainage from the endometrial cavity.

The infected patient has resistance in the form of a rapid mobilization of leukocytes into the uterine wall. Capillary and inter-villous thromboses are formed. There is a production of antibodies and thus a defensive wall against invasion is formed. Many obstetricians do not choose to interrupt this defensive wall by invading the uterus, fearing that the manipulation will spread the infection from the uterine cavity which in turn could cause serious complications.

We are of the opinion that just the opposite ensues by immediately emptying the uterus with a sharp curet. This instrument is used because it more readily removes the tenacious abortus from the uterine wall. The operation promotes drainage from the uterine cavity, blood loss is curtailed, the uterus is debrided of infected material (a sound surgical principle), and thus the local defensive mechanism has less to defend.

Uterine tonus is enhanced further confining the infection to the uterine cavity.

Tenny and associates,² report that in severely infected patients the uterine cavity should be emptied without delay, and that in cases of septic shock this may be a life-saving procedure.

We believe the immediate emptying of the uterus in all of these 33 infected abortions accounted for the good results so free of complications. The administration of antibiotics after the operation undoubtedly gave the patients good protection, but we see no reason to delay the operation to administer antibiotics when probably very little of these drugs are concentrated within the uterine cavity. Effective blood-levels are reached soon enough if the drugs are administered in the immediate postoperative period.

Summary

1. Thirty-three patients with infected abortion were treated by immediate evacuation of the uterus with a sharp curet and with subsequent administration of antibiotics.

2. No serious postoperative complications were encountered in any of the patients.

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1. Turksoy, N.: The Management of Infected Abortion, *Obst. & Gynec.* 13:399, 1959.
2. Tenny, B., Little, A. B., and Wamsteker, E.: Septic Abortion, *New England J. Med.* 257: 1022, 1957.

STAFF CONFERENCE

John Gaston Hospital*

Abruptio Placenta

DR. PHIL C. SCHREIER: The conference today deals with a problem or complication of obstetrics which involves new therapy and modern ideas. Dr. Graves, will you present the patient's history?

DR. LESTER R. GRAVES: R. L. L. a 16-year-old primigravida was admitted to the delivery suite on February 27, 1959 complaining of low abdominal pain.

Present Illness: The last normal menstrual period was in July 1958 and her expected date of confinement was sometime in April 1959. Thus the length of gestation was approximately 7½ months. She had had no prematal care. Pedal edema and frequent headaches had been present for two weeks prior to admission. She had had a sudden onset of abdominal pain approximately eighteen hours prior to admission and no fetal movement had been noted since that time. At the time of admission the abdominal pain was more or less constant and for the most part in the suprapubic area although there was some generalized abdominal pain.

Physical examination on admission revealed a well developed, well nourished colored female with a blood pressure of 146/110 and a pulse of 84. Her uterus was term size, tender, tense and in a state of tetany. There was a 2+ pitting edema of the lower extremities. Fundoscopic examination revealed normal eyeground. On rectal examination the cervix was 2 cm. dilated, 60% effaced while the fetus was in a cephalic presentation at a -2 station.

Laboratory studies: Her initial laboratory work revealed a 4+ proteinuria, a microscopic hematuria with 3 to 5 granular casts present per high powered field. The hematocrit was 22 vol. %, the sickle cell preposition was negative. A fibrindex test was reported as subnormal. Blood was drawn immediately for type and cross match and a clotting time. The clotting time revealed no clot formation after 30 minutes of observation.

Course in hospital: The patient was moved immediately to the operating room where 500 cc. of whole blood was begun as she was being prepared for vaginal examination. The vaginal examination revealed a soft cervix, 3 cm. dilated, 60% effaced and the fetus was in a cephalic presentation at -2 station and the membranes were intact. After the pelvic measurements were determined to be adequate the membranes were

ruptured, and approximately 400 cc. of blood stained amniotic fluid was obtained. No gross bleeding was noted at any time during this procedure. The clinical diagnoses at this time were severe pre-eclampsia with abruptio placenta, intrauterine death and hypofibrinogenemia. Following the vaginal examination and amniotomy the patient was placed in the labor room where over the next 2 hour period she was observed for the onset of spontaneous labor. During this period of time she received 500 cc. of whole blood and 2 Gm. of fibrinogen intravenously. She was sedated with 75 mg. of meperidine hydrochloride (Demerol) intravenously and 3¾ grains of Sodium Amytal intramuscularly. Blood was drawn periodically for rechecks on the clotting time. At the end of this two hours labor had not begun satisfactorily and 1000 cc. of 5% glucose in distilled water containing 0.5 cc. of Syntocinon (synthetic oxytocin) was begun intravenously at approximately 20 drops per minute. The blood pressure was 160/110 and antihypertensive drug therapy was begun. Another unit of blood was given. The clotting time was now three minutes but the clot retraction was poor. Rechecks of the clotting time after this revealed a good clot and an adequate clotting time (Fig. 1). At no time had she exhibited evidence of abnormal bleeding, from the vagina, other orifices or needle puncture wounds.

After 2½ hours of Syntocinon stimulation re-examination revealed the cervix to be 9 cm. dilated, 100% effaced, and the head was now transverse presentation at +1 station. The blood pressure was now 126/90 and the clotting time was normal. Following another hour of Syntocinon stimulation the cervix was completely dilated and effaced and the fetal head had descended to a +2 station. The caput was visible at the introitus. The patient was moved to the delivery table where under general anesthesia a stillborn infant was delivered by midforceps rotation from a right occipitant transverse position. A left mediolateral episiotomy was used. The blood pressure shortly following delivery dropped to 70/40 but responded quickly to 5 mg. methoxamine hydrochloride (Vasoxyl) given intravenously and another pint of whole blood. Two hours postpartum the blood pressure was 120/80 and the clotting time was normal. The following morning the hematocrit was 19 vol. % and another pint of blood was given. The clotting time was normal at this time. The patient was discharged home on her 6th postpartum day without further complications.

DR. SCHREIER: Here we have an example of vaginal delivery in a patient with severe abruptio placenta, a dead fetus and hypofibrinogenemia. The policy of delivering these patients vaginally who have have abruptio placenta, especially with a dead fetus has been followed to a large degree in this department although it is

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recognized that there are limitations. I am certain that there will be some debate as to whether this patient should have been delivered by cesarean section. Dr. Loving, you seem to be in the mood to disagree with the management in this case.

DR. MARTHA LOVING: My own personal opinion is that any primigravida who cannot be delivered within 12 hours of the onset of her abruptio should be terminated more rapidly than vaginal delivery will allow. In other words, I would have delivered her by cesarean section. Since it was elected to proceed with vaginal delivery, in spite of the fact that this patient had had symptoms 8 hours prior to admission, I wonder why it was elected to do a midforceps delivery. One more hour of Syntocinon stimulation might have led to a much easier low forceps delivery. Of course, fibrinogenemia and her blood loss should have been corrected and for my money a cesarean section done at that point even though it be unrewarding and result in a nonviable fetus. When done in this way you have not let too much time elapse so that you might run into a recurrence of hypofibrinogenemia.

DR. SCHREIER: The unrewarding cesarean section, where a dead baby is delivered, Dr. Loving, has promoted the interest in the use of oxytocin to promote vaginal delivery. Dr. Henry, what has been the experience in this department in this regard?

DR. LOUIE C. HENRY: In 1954 oxytocin stimulation to bring about delivery of the dead infant in patients, particularly primigravidas, with total abruptions was instituted. We compared the group of patients with severe abruptio placenta managed in 1953, which was the last year in which cesarean section was used almost to the exclusion of other techniques, with the same type of patients managed in 1955, 1956 and 1957. During these years oxytocin was used extensively and cesarean section rarely. Our result, as reported in the recent issue of *Obstetrics and Gynecology* compares 36 patients with severe abruptio in 1953 with 91 similar patients in 1955, 56, and 57. In the former group, cesarean section was used in 50% whereas in the latter group the incidence of cesarean section decreased to approximately 6 per cent. Conversely the

incidence of patients treated with oxytocin stimulation increased from 12% to 38 per cent. The results, for the most part of this nonsurgical management of the patient with severe abruptio and a dead baby have been quite good with the exception of perhaps one or two incidences we have had no reason to regret the use of oxytocin in these patients.

DR. JOHN Q. ADAMS: When the idea originally arose of using Syntocinon stimulation to deliver these patients vaginally there were several doubts and reservations in the minds of most of us. First, there was doubt expressed as to whether the tetanic uterus could be stimulated with Syntocinon into regular rhythmical contractions. Most of us felt that it could not. Secondly, would this tetanic uterus be more susceptible to rupture and thirdly, would the incidence of hypofibrinogenemia be increased by the use of Syntocinon stimulation? In reviewing our experience we can say, much to my surprise, that the tetanic uterus was stimulated into rhythmical contractions even though it had been in a state of maximum contraction. The incidence of rupture of the uterus was probably no greater, although the size of the series is so small that one cannot prove this point. Finally, I believe that we can say with some degree of assurance that the incidence of hypofibrinogenemia was not increased through Syntocinon stimulation.

DR. HENRY B. TURNER: I have one question concerning the laboratory work that was done on this patient. Dr. Graves mentioned that the patient's clotting time was studied repeatedly and I believe he mentioned one fibrindex determination. I wish that he would point out for us the relative value of these two tests and how a patient should be followed from the clotting defect standpoint.

DR. GRAVES: The fibrindex test is performed by adding a small amount of topical thrombin to less than 1 cc. of the patient's plasma. If after 30 seconds, no clot is present fibrinogen deficiency has been diagnosed. This gives an immediate answer as opposed to the routine clotting time which is performed by simply drawing 5 cc's of blood, placing it in a tube and measuring the time required for initial clot formation. One must wait 30 minutes to determine the pres-

ence of a clot and to see if a clot which had been formed will remain stable. If no clot is formed there is a fibrinogen deficiency and if the clot is formed, but breaks up subsequently there may be the presence of fibrinolysin. The fibrindex test gives a quicker answer but is a little more difficult to perform.

DR. TURNER: Thank you Dr. Graves. The point I was trying to make is that I believe the greater majority of these patients can be well managed by repeated determinations of clotting time and observation of the clot. This can be done without any special knowledge of hematology or any extensive laboratory equipment. The blood is simply drawn and placed in the test tube and observed by the physician. With a normal clotting mechanism a secure clot should be noticed within the first 15 minutes. In the absence of such clot formation hypofibrinogenemia is suspected. Lysis of this clot would be indicative of increased fibrinolysin. I would like to point out that whether the primary clotting deficiency is due to hypofibrinogenemia or to increased fibrinolysin the basic method of management remains the same. They both need fibrinogen.

DR. HAZEL E. ATHERTON: In order to reduce the possibility of fibrinogen deficiency the membranes should be ruptured as an early procedure in all patients with abruptio placenta regardless of the condition of the fetus. The interest in delivering vaginally with a nonviable baby seems to be a justifiable reason to employ oxytocin after the membranes are ruptured, however applying this to a living baby is more debatable.

DR. ALBERT M. ALEXANDER: During the initial phase of this procedure, I believe we were a little too enthusiastic in hoping to avoid cesarean section entirely for all patients with abruptio placenta. A few patients with partial abruptio and a living fetus were managed by Syntocinon stimulation rather than by emergency cesarean section. I believe that we did in some instances lose salvagable infants where a partial abruptio became total under Syntocinon stimulation. While our experience has revealed that this is a rewarding procedure for a dead or nonviable baby, I believe that

with a living baby an emergency cesarean section offers the fetus a much better chance where delivery is not imminent within the next hour.

DR. ADAMS: A few moments ago Dr. Loving raised a question that perhaps we should return to for a moment. This patient was delivered after 3½ hours of Syntocinon stimulation by a midforcep rotation. Dr. Loving raised the question that perhaps another hour's delay would permit a low forceps delivery. I think Dr. Loving's questions are well founded but I would like to offer some defense of this. One of the main worries in the management of this patient was hypofibrinogenemia. This was corrected but, everyone was a little uneasy that it might worsen. The patient under Syntocinon stimulation made good progress, the cervix became completely dilated and the head descended to a +2 station in a right occiput transverse position. At this time the patient was deliverable and it was thought that further delay might increase the possibility for worsening of the hypofibrinogenemia. I would not contend that further stimulation would fail to bring this head down and allow a low forcep delivery. I am certain that it would have, however, this would have meant a delay of an hour or more and there was some urgency that she be delivered as soon as possible for fear that her general condition would deteriorate with disastrous results. This same fear of a return to hypofibrinogenemia with general deterioration is the same that would have prompted Dr. Loving toward doing a cesarean section earlier.

DR. SCHREIER: I would like to ask what is the average duration of the use of oxytocin in these patients? There must be a time limit in encouraging labor. I recognize that the controversy between Dr. Loving and Dr. Adams takes us into the gray zone in obstetrics. All things are not as exact and judgment cannot be as precise as we would like for it to be on occasion. We do not always have to prove that our judgment is absolutely perfect or even attempt to do so. The trap that one might get into using an oxytocin in these cases has to be avoided by setting a time limit as well as by guiding ourselves with the progress of labor and the general condition of the pa-

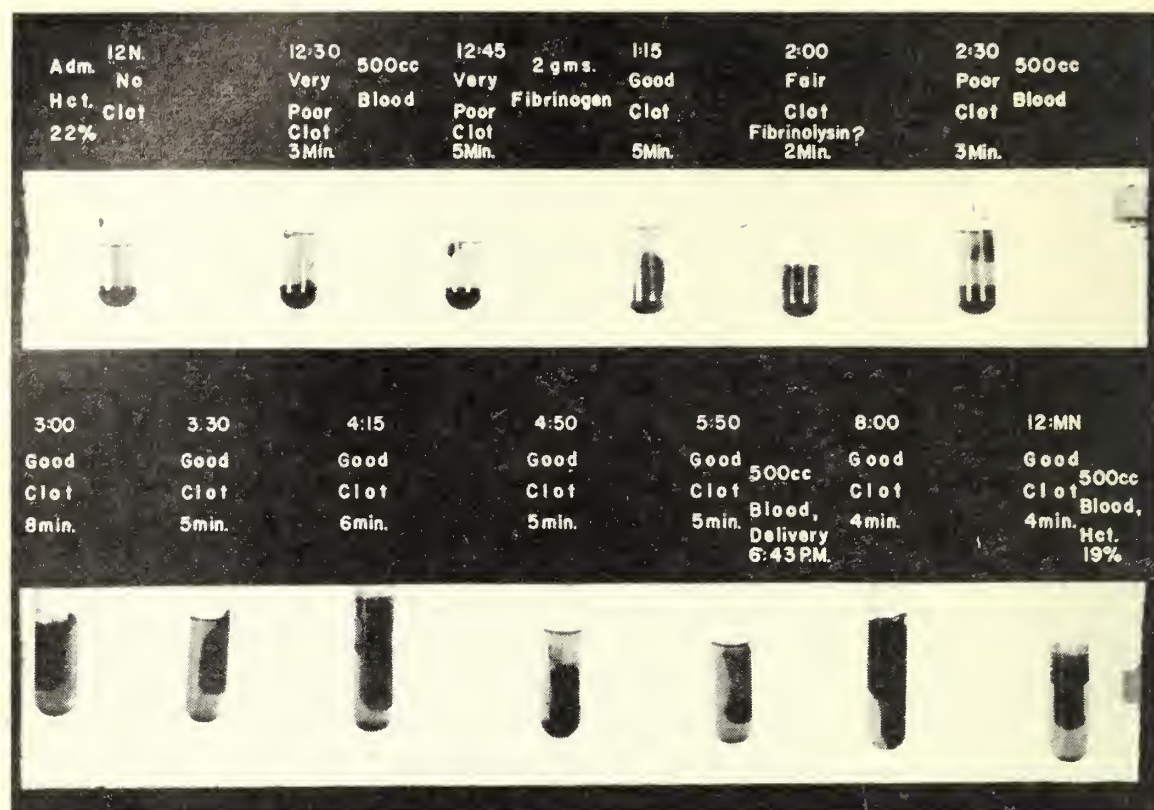


FIG. 1. Serial clotting times on patient R.L.L. from admission until after delivery.

tient. We are at this institution dedicated to try to deliver these dead babies vaginally as long as all things are favorable. It may in some instances be pursued to the point where there would be some debate as to whether it was justifiable.

DR. BENNETT EVERETT, JR: I disagree that the choice of procedures for a patient should be based entirely upon the over zealous purpose of avoiding a cesarean section in a patient with a dead baby. Although none of us like to do a section with a dead infant I believe that the major objective is to save the patient's life. In past years many of these patients were sectioned immediately upon entering the delivery suite, and either during or following surgery a bleeding tendency developed and the patient's life was in jeopardy. Regardless of how these patients are delivered we like to get the fetus and placenta out of the uterus as soon as possible and avoid any more depletion of fibrinogen. The main point in treating these patients is to constantly check for fibrinogen depletion to replace fibrinogen as evidence of depletion becomes apparent and to deliver the patients in the least traumatic and most rapid manner.

DR. BETTY J. SCHETTLER: One of the basic and most important things is that the membranes be ruptured as soon as the diagnosis is made. This releases intrauterine pressure and reduces the likelihood of absorption of thromboplastin from the damaged placental site into the general circulation. In recent years we have persisted longer in attempting vaginal delivery than we did prior to the days when fibrinogen was not so easily available. Fibrinogen should not be used as a means of protection allowing us to persist in efforts for vaginal delivery when this does not appear to be advisable.

DR. LAWRENCE BROWN: Let me give one word of caution on the indiscriminate use of fibrinogen. There are at least two reasons why it should be used without definite indications. One of the most important as far as the patient is concerned is the expense involved. This is still expensive medicine and we as doctors should bear this in mind. Second, there is a high incidence of serum hepatitis following the use of fibrinogen. This has been reported by Pritchard as being approximately 20 per cent.

DR. SCHREIER: In summarizing this patient's history and management we recognize that we now have a new approach in the management of the various types of abruptio placenta. At the present time we are inclined to deliver the patients with a viable fetus by cesarean section unless delivery is so imminent that we could expect it to occur within an hour. Rupture of the membranes in these instances is followed by rapid progress. In other instances we may use Syntocinon for a period of time while the operating room is being readied and vaginal delivery will be accomplished in some of these patients if all factors are favorable. We do not believe that Syntocinon stimulation and abruptio placenta jeopardizes the maternal condition. If we are not certain whether or not we are dealing with a live baby and delivery cannot be accomplished within a short period of time cesarean section is probably the treatment of choice. Definitely we have moved away from doing cesarean section immedi-

ately upon recognizing abruptio placenta. It bears repeating that such a departure from a traditional method of management is the result of a combination of the availability of blood and fibrinogen plus the judicious use of oxytoxics intravenously to promote and accelerate labor.

DR. PRENTISS TURMAN: It might be added that practitioners in areas where whole blood for immediate administration is not available might look upon abruptio placenta as a more hazardous condition than those of us who have the ready availability of large supplies of blood.

DR. SCHREIER: Dr. Turman, fortunately blood has become so universally available that few practitioners find themselves without it. One of the prime necessities of the management of these patients is a large supply of whole blood. I do not know how a doctor who does not have access to blood can cope with this problem regardless of whether he delivers a baby vaginally or by cesarean section.

CLINICOPATHOLOGIC CONFERENCE

Carcinoid Tumor of Papilla of Vater*

I. Frank Tullis, M.D., H. Colby Gardner, M.D.,
John Hughes, M.D., Richard H. Walker, M.D.,
and Richard O. Bicks, M.D.

B. S., a 69 year old unmarried colored female domestic worker was referred to John Gaston Hospital by her local physician because of jaundice.

For the past 8 years she had had episodes of nonradiating right upper quadrant pain associated with nausea and vomiting which lasted two to three days. The episodes were not always related to meals but could be precipitated by a fatty meal. Sometime after the first "gallbladder attack" she had jaundice for two to three weeks with intense pruritus. Since then she had similar episodes of pain, nausea and vomiting six to twelve times a year, and had recurrent jaundice with dark urine and light colored stools about once a year. Jaundice was not always correlated to the right upper quadrant pain by the patient and could occur when otherwise asymptomatic. The jaundice reappeared 5 months prior to admission and persisted with occasional right upper quadrant pain. She had observed light colored stools and dark urine for one to two weeks and thought she had lost a few pounds of weight during the past year.

Due to the development of ankle edema and orthopnea she had been placed on digitalis three months previously and these symptoms had improved. There was no paxipural nocturnal dyspnea and no exertional dyspnea although activity had been limited by arthritis for several years.

Past history included arthralgia, especially of the hips and shoulders, for 3 years and a life-long history of occasional attacks of wheezing, dyspnea and productive cough, usually associated with a cold. The patient had had soft nodular subcutaneous tumors of varying sizes all of her life.

There was no history of exposure to jaundice or infectious disease. One sibling had died of tuberculosis and two siblings and a grandmother had neurofibromatosis. One niece had diabetes mellitus.

Physical examination revealed a well-nourished, ill, jaundiced woman in no acute distress and with normal vital signs. Scleras were definitely icteric and bilateral opacities of the lens were present. Examination of the mucous membranes was normal except for pigmented spots in the oral cavity. There were hundreds of soft, irregular, nontender, subcutaneous nodules varying from a few mm. to 5 cm. over the entire body. The lungs, heart and vascular system were not remarkable. The abdo-

men was slightly distended and the liver felt to be smooth, nontender, and palpable 3 cm. below the right costal margin. A small firm tender mass was felt beneath the liver in the right midclavicular line. Feces was light colored. The remainder of physical examination was noncontributory.

The following laboratory results were reported: Hct. 30 vol. %, Hgb. 11 Gm. %, WBC 6,350 with normal differential and adequate platelets. Urinalysis was negative for urobilinogen and positive for bilirubin but otherwise normal. Feces was negative for blood, and slightly positive for urobilinogen. Serum bilirubin was 1.9 mg. in 1 minute and 2.8 mg. % total; alkaline phosphatase 28.3 units, total proteins 6.5 Gm., albumin 3.6 Gm., globulin 2.9 Gm. %. BUN., prothrombin time and STS were normal. SGOT was 68 units.

Patient was transferred to Surgery for an operation one week after admission. Postoperative course was uneventful for 18 hours, but the patient was found in unexplainable shock and despite oxygen, Levophed, blood and endotracheal suction died about 40 hours after surgery.

Clinical Discussion

DR. I. FRANK TULLIS: The clinical discussion today will be presented by Dr. John Hughes, and Dr. Hughes has asked that we might review the radiologic findings at the beginning instead of interrupting his discussion.

DR. H. COLBY GARDNER: These are all the films we have available on the patient. This is an excellent demonstration of neurofibromatosis. There are multiple small nodules of water density throughout the soft tissues. On this film of the abdomen, for example, you see multiple nodules within the soft tissues of the abdominal wall. The patient was unable to suspend respiration for this film of the abdomen and you can see how calcifications as large as these calcified uterine fibroids can be obscured simply by motion. On the chest, we can see many soft tissue nodulations within the chest wall. There is a suggestion in a few areas such as this point here of excavation of rib and indeed bony changes of neurofibromatosis are said to occur in 7 to 22 percent of patients having this disease. The last two films demonstrate again the calcified uterine fibroids. There is non-visualization of the gallbladder on a single cholecystogram.

DR. JOHN HUGHES: I presume everybody read the protocol, and I presume also that everyone will agree that it starts out

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remarkably simple. However, the fact that we have a classical description of a 69 year old woman who should have gall stones, according to the first paragraph, does not necessarily leave us with that as a final definitive diagnosis. On the other hand we should avoid, if possible, in medicine going extremely out in left field to catch a diagnosis when we have things more statistically common to think about. This is not a cry that we forget the weird syndromes and eponyms, but we ought to be logical about our deductions in diagnosis, and I think that we virtually are certain that this woman has gallbladder disease, in view of the fact that she is 69 years of age, and that the duration of symptoms is 8 years. That would throw the onset of her illness at age 61. She is not fair in the sense of skin: "fair, fat, and forty" is a classical description of people with gall stones, but I am sure those of you who have had your pediatrics have seen gall stones in infants, in childhood, and certainly not limited to women, nor to obese people. In passing, I might say that about five years ago I had in private practice an unusual run of young women with gall stones. In one period of twelve months I had the gallbladders removed from six women between ages 21 and 28, all containing stones.

We will not have time to enter a discussion of why, but it is a good point to remember that approximately one out of four women sooner or later will have gallbladder disease, and this may be relatively asymptomatic. About 25 percent of the women get some disease of the gallbladder sooner or later, and about 10 percent of men.

So then, with a figure like that, and dealing with a woman 69 years of age, who has typical gallbladder type dyspepsia, who had intermittent attacks of jaundice which only in the last few months became a chronic jaundice, I do not see how you can avoid a diagnosis of chronic cholecystitis, and in all probability there were stones. The fact that we have just seen some cholecystograms which show a nonfunctioning gallbladder should not concern us too much in retaining our diagnosis of gall stones, because in nonfunctioning gallbladders the vast majority will have stones. We have to take into consideration the fact that she had some limitation of liver function, but it

was not a tremendous limitation. For example, we see that her total bilirubin was 2.8 mg %. If we tried to x-ray her gallbladder with a bilirubin of 10 or 15 mg. percent, we would not expect to see anything because if the dye cannot get through the liver, due to liver disease, how can it get to the gallbladder to be visualized the next morning? I do not know, and the protocol does not say that they gave her some extra gallbladder tablets, but it would not have been a bad idea roentgenologically in the presence of mild jaundice to have gone ahead and given two extra tablets to make sure that she had an extra amount of dye.

In the diagnosis of people who are having episodes of nausea and vomiting six to twelve times a year with upper abdominal pain, as in this case, the odds are great that it would be gallbladder colic. It is remotely possible that it could be renal colic. It is confusing, rarely, to have kidney stones referring most of the pain to the epigastrium, and since most renal colics cause nausea and vomiting, occasionally it is an obscure situation. Almost invariably it is easy to differentiate the two types of colic. There was nothing in this case to make me think of intestinal obstruction as responsible for these colics and these attacks of abdominal pain six to twelve times a year, and none of the things I have mentioned could cause jaundice except biliary disease.

Now whatever was causing jaundice at the last is not necessarily what was causing jaundice at the first. I would like to make that point clear. Eight years ago at the age 61 she had her first episode of nonradiating, right upper quadrant pain associated with nausea and vomiting which lasted two or three days. That was followed by jaundice. Sometime after the first "gallbladder attack," she had jaundice for two or three weeks with intense pruritus. No other type of colic as far as I can see would be responsible for an obstructive intermittent type jaundice over a period of eight years, such as we have just heard described, except gallbladder colic. The obstructing mechanism would have to be in the common bile duct or possibly higher up in the hepatic ducts. A gallbladder colic occurring with a stone remaining in the gallbladder, or in the cystic duct will not cause jaundice un-

less the stone plus edema equals a large enough volume to compress the common bile duct.

We are sure this is obstructive jaundice and that the intense itching is due to bile salts getting into the skin. Bile salts cause two symptoms in obstructive jaundice that are well worth remembering. One is an intense pruritus, and the second is bradycardia. These attacks recurred throughout the years, her urine was dark, and light colored stools were at times present. Later on jaundice was not always correlated with right upper quadrant pain by the patient, and could occur when the patient was otherwise asymptomatic. About 5 to 10 percent of individuals with stones in the common bile duct do not have any pain.

An individual who has such a history as this with recurrent episodes of obstructive jaundice gets back pressure up behind the obstructing mechanism, and the bile becomes stagnant. This makes a nice culture medium, and bacteria get started in the bile and ascend upward either through the bile, or through the lymphatics and the wall of the bile ducts, and finally get up into the cholangioles. So we get, then, gradually, a form of liver damage which is referred to in the acute phases of it as a cholangitic, or cholangiolitic type of hepatitis. When this subsides, leaving behind scar tissue, we then speak of cholangiolitic cirrhosis. This often becomes permanent, and you note that she had jaundice for the last five months, I believe it was, prior to the terminal illness.

We have to mention sooner or later the possibility of cancer of the gallbladder. Individuals with cancer of the gallbladder almost invariably have stones: the converse is not true. It is a medical curiosity to find a malignancy beginning in the gallbladder without stones being present. The danger of carrying gallstones around decade after decade without the benefit of surgery, the danger in regard only to the possibility of malignancy of the gallbladder developing, has been alleged to be somewhere between one and three percent. There is a small danger. You will notice that this woman has been described as being well nourished, which is certainly against neoplasm. While I think it is true that there is a possibility that the pathologist may say that he found

carcinoma of the gallbladder, nevertheless this is not so far the clinical story, unless the woman is just developing malignancy of the gallbladder.

I think it is interesting to speculate on why she had ankle edema and orthopnea. I am a little bit hard pressed explaining orthopnea in this patient unless I come back to the clinical observation that about 50 percent of people with gallbladder disease have coronary arteriosclerotic heart disease. That is about 50 percent of people, let's say, above forty or fifty years. We would not expect coronary arteriosclerotic heart disease to be present in children and very young adults with gallbladder disease. There is more than just a statistical coincidence between coronary arteriosclerotic heart disease and cholecystitis. If we think a moment, in both of these diseases there is a disturbance of cholesterol metabolism. Usually, but not always, individuals with coronary arteriosclerotic heart disease have or have had hypercholesterolemia. In gallbladder disease cholesterol is often deposited in the walls of the gallbladder. There are such things as pure cholesterol stones, and cholesterol is commonly the mortar holding together calcium bilirubinate stones. So we have a common denominator in these two diseases, gallbladder disease and coronary arteriosclerotic heart disease. We do not have any history of hypertension, no one heard a murmur, and the heart was not enlarged on chest x-ray. Hypertension is out and also valvular heart disease, leaving us most probably with a woman 69, whose aging heart muscles has been further weakened by liver and gallbladder disease.

In regard to her asthmatic bronchitis, I think by far the most common possibility there is ordinary chronic bronchial asthma and from time to time superimposed infection causing asthmatic bronchitis.

I must admit that these neurofibroma keep hanging over me diagnostically, and we could sit down with a pencil and figure out the whole case as due to neurofibromatosis. Why could we not say that there is a possibility that one or two of these little neurofibromata protruded into one of the bronchial tubes and sometimes mechanically obstructed it, and caused a wheezing attack; or as infection developed, it became

edematous and blocked the tube up even more, causing rougher attacks which sounded clinically like asthmatic bronchitis? We could explain, by putting the neurofibromata in the respiratory mucous membrane, the pulmonary symptoms. We could even postulate neurofibromatosis of cardiac musculature. I only say that is a theoretical possibility. Also it is a theoretical possibility that these tumors could be around the pulmonary vessels and cause such a pulmonary hypertension by obstructing that right heart failure developed.

Getting down to the abdomen, it is very conceivable that neurofibromatosis could be in this woman's abdomen. She could have neurofibromata around the common bile duct. Such a tumor could swell up and then undergo necrosis in the central portion and quiet down, thus causing intermittent obstructive jaundice from external pressure. That possibility I must admit.

Now we get down to these little spots in the mouth. Well, to begin with, some negroes have spots in the mouth naturally. This is true in several of the colored races; I am sure you have observed it here in the clinics. I do not see any reason for us to figure that this was a Peutz-Jeghers syndrome, which is a combination of intestinal polyposis and pigmentation. Most of the polyps are located in the colon, but they occur up and down the small intestine also, and this syndrome is also coupled with spots appearing in the mouth or peri-orbitally on the cheeks, on the outer surface of the lips, on the inner lips, on the buccal mucous membrane, on the gums, hard palate, etc. However, in the Peutz-Jeghers syndrome we certainly would expect some fairly dramatic lower digestive tract symptomatology, which is absent here. We certainly would expect some recurrent episodes of diarrhea and possibly some gastrointestinal tract bleeding, as these polyps are notorious for bleeding, but we do not have any bleeding. In fact, the protocol stated that there was no blood in the stool.

We will just mention in passing Addison's Disease, which should be thought of when anybody has spots in his mouth. But hypertension is absent, and besides, Addison's Disease does not cause jaundice.

Whipple's Disease, lipodystrophy of the

digestive tract, sometimes has some buccal spots or pigmentation and must be considered, but that disease usually has clear cut lower digestive tract symptomatology including a sprue-like syndrome of foul, fatty stools and marked loss of weight, neither of which this woman had.

Now we should get into some of the laboratory findings. Unquestionably she was icteric with 2.8 mg % serum bilirubin, 1.0 mg. % being the upper limit of normal. 1.9 mg. % was direct one minute type, meaning that the bilirubin had gone through the liver and had been reabsorbed and 0.9 mg. % was the type of bilirubin that had not yet gone through the liver. Therefore it is a diphasic reaction. The van den Bergh is a very important test. However, no matter whether you start with hemolytic icterus, which gives an indirect reaction, or obstructive icterus, which gives a direct reaction, sooner or later there is enough liver damage so that you get a diphasic van den Bergh, an extremely important point to remember. I hope that the University of Tennessee does not perform the icterus index any more. That test is the only thing that I know of that causes me to become hypertensive temporarily. Why run a test like an icteric index, which only tells you the color, when it doesn't tell you what is making the color? Drinking carrot juice will often cause the icterus index to become positive, as will various chemicals, such as atabrine. When you run a van den Bergh, you know that the pigment is bilirubin.

I think we should say something about the alkaline phosphatase reaction. Two to four Bodansky units is the range of normal. When you get above 15 Bodansky units, obstructive jaundice is certainly present, often neoplastic. This woman had 28.3 units. She obviously had a bad obstruction. Our problem is, was she obstructed extremely low in the biliary tract, namely in the common duct, or was she obstructed in hundreds of places high up, in the cholangioles? In either event you could get a high score.

The serum proteins have been interfered with to some extent. Her albumin was 3.6 Gm. %, which is a little bit low. It should be 4.5 to 5.5 Gm. %. Where are the proteins manufactured, albumin and globulin? Largely in the liver. and if the factory is

not working well, how can as many products come off the production line per day? Also, in biliary and liver disease the appetite is not too good, and anorexia develops. Thus less food is ingested, yielding less protein building blocks. Finally, the ability to absorb is interfered with by back pressure in the portal venous system, causing boggingness of the mucous membrane. So you have multiple reasons which you would expect to cause a decline in albumin. In regard to globulin, I think that 2.4 Gm. % is the upper limit of normal. When you get up above that, you have evidence of too much globulin. It does not mean liver disease necessarily. The peculiar thing about many of these so-called liver function tests is that they do not necessarily mean that the liver is at fault. An elevated globulin may be due to over-production of globulin in the endothelial system elsewhere.

In this case the albumin is down, and this may account for some of the ankle edema, and she is somewhat anemic, which might account for it also. Nothing was wrong with her blood urea nitrogen, prothrombin time, or STS. Her serum glutamic oxalacetic transaminase was 68 units, 40 units being the upper limit of normal. The test is hardly necessary in the face of jaundice, and I am a little bit puzzled as to why it was ordered. It does not mean anything diagnostically here. Now in acute hepatitis it may be as high as a thousand units. The best use of this test, as you well know, is in the individual with chest pain where the electrocardiogram is equivocal. If the serum glutamic oxalacetic transaminase starts out the first day as normal and jumps up to 75 the next day, and to 125 the following day, for example, and there are some questionable changes in the electrocardiograms, we have ourselves a diagnosis of myocardial infarction. Also in certain situations where you have a left bundle branch block that submerges the pattern of infarction, a serum glutamic oxalacetic transaminase comes to the diagnostic rescue again. I don't use it very much in differential diagnosis of liver disease, except in the preicteric phase of acute hepatitis.

But we must get back to our patient who was transferred to surgery for an operation one week after admission. She got along

fine for eighteen hours and then went into unexplainable shock, and despite all sorts of efforts, well taken, died on the second postoperative day.

While recognizing that neurofibromatosis could settle everything wrong with this woman, if you want to postulate it being mechanically prevalent here, there, and yonder, in bronchial tubes and heart, and around the common bile duct, I do not believe it was the one and only diagnosis. There is a possibility that the mass in the region of the gallbladder was a malignant mass, but if so, I do not feel that it was malignant soon enough to be the cause of death. It certainly had not been malignant for five months, as that is a pretty preposterous time for somebody to live with a malignancy of the gallbladder.

In conclusion, I feel that the primary diagnoses were chronic cholecystitis with cholelithiasis, and choledocholithiasis causing intermittent attacks of obstructive jaundice, which in turn resulted in chronic ascending cholangitis and cholangiolitis eventuating in cholangiolitic cirrhosis of the liver. I admit the possibility that the gallbladder had become malignant, but not soon enough to participate in the clinical symptomatology. I believe her neurofibromatosis was a red herring dragged boldly across the diagnostic trail. Cataracts were known to be present, and arthritis, most likely of the osteoarthritic type.

DR. I. FRANK TULLIS: Thank you Dr. Hughes. I think perhaps to make the best use of our time we will ask Dr. Walker to present the pathologic findings and then we will come back to our thoughts of correlation.

DR. RICHARD H. WALKER: Occasionally clinical pathological conferences will have rare or unusual diagnoses brought to them and today's case is just such a problem. I would like to start by filling in the details of the surgery. The surgeons felt that gall stones were likely to be present and their proposed procedure was a cholecystectomy with a common duct exploration. However, when the area was explored, a tumor of the papilla of Vater was found producing obstruction and marked dilatation of the common bile duct with partial obstruction of the duodenum at this level. Al-

though a benign diagnosis was returned on frozen section of the tumor, it was elected to perform a modified Whipple procedure because of the size, location, and effects of the tumor. This operation lasted 4 to 5 hours and the patient received 4 units of blood during the procedure. The immediate postoperative period was uneventful, but 18 hours following surgery the patient went into shock. Physical examination and X-rays revealed a massive atelectasis of the right lung base. Bronchoscopy with aspiration of large amounts of mucous, and intravenous fluids were to no avail, and the patient expired in shock. The immediate cause of death in this case is related to the shock resulting from massive atelectasis of the right lung base and contributed to by the radical abdominal procedure.

The surgical specimen (Fig. 1) consisted



FIG. 1. Surgical specimen showing distal stomach, pylorus, duodenum, head of pancreas, and tumor of papilla of Vater.

of the distal portion of the stomach, pylorus, duodenum, head of pancreas, and part of the common bile duct. A large tumor, measuring 3 cm. in diameter, was found involving the papilla of Vater. It was yellow-grey, firm, and fairly well defined. Microscopic examination revealed that the tumor appeared to arise in the submucosa and was covered by intact mucosa. The tumor was composed of nests and bundles of uniform cells (Fig. 2) with large nuclei. The cells were arranged in characteristic gland-like clumps separated by clefts. This tumor is a carcinoid, and silver stains reveal argentaffin granules in the cytoplasm of these cells.

The wall of the common bile duct was markedly thickened and showed evidence of long standing inflammation. No stones were found.

At autopsy the body weighed 90 lbs.

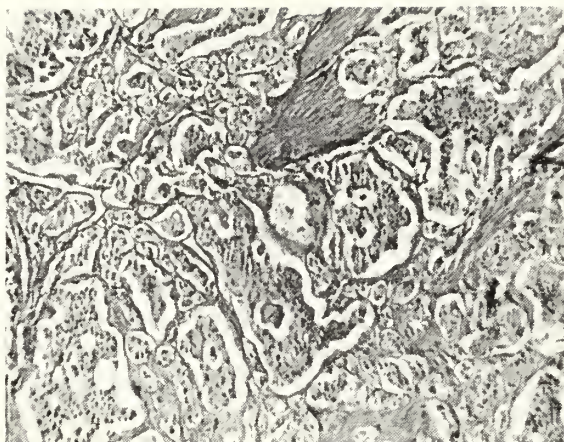


FIG. 2. Photomicrograph (35x) showing carcinoid tumor of papilla of Vater.

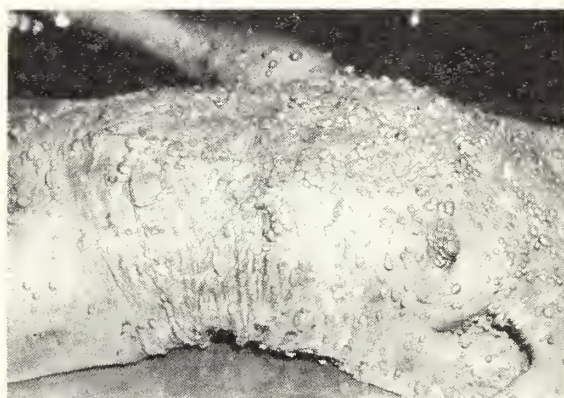


FIG. 3. Picture of patient at autopsy showing multiple neurofibromatosis.

Scleral icterus and multiple cutaneous and subcutaneous nodules were noted (Fig. 3). This is a characteristic appearance of multiple neurofibromatosis or von Recklinghausen's disease. The pigmented spots in the mouth were part of this picture. There was a right rectus incision with drains in place, but there was no evidence of leakage at the sites of surgical anastomoses, nor was there evidence of hemorrhage. There were multiple tumors involving the mesentery of the bowel, the gastric wall, and the paravertebral region, particularly in the cervical and thoracic areas, which also proved to be neurofibromas. There was a mild hypertrophy of the left ventricle of the heart, but there was no evidence of valvular disease and only mild coronary artery disease was present. Therefore, I cannot explain the clinical picture of heart failure unless hypertension was present. Both lungs were heavy and edematous, and there was marked basilar atelectasis of the right lower lobe. The liver had no evidence of cirrhosis.

Both kidneys were finely granular, and the bladder was inflamed. Leiomyomata uteri and a nodular goiter were also present. The brain was not remarkable.

Microscopic sections revealed typical neurofibromas of the skin, mesentery, gastric wall, and paravertebral areas. They were composed of an admixture of connective tissue and neural elements. Edema, congestion, and atelectasis were present in the lungs. The liver had a chronic cholangiolitis, and the kidney sections revealed an acute tubular necrosis probably due to the shock.

Final Pathological Diagnoses:

1. Multiple neurofibromatosis involving skin, subcutaneous tissue, mesentery, gastric wall, and paravertebral ganglia.
2. Carcinoid tumor of papilla of Vater associated with marked dilatation and chronic inflammation of the common bile duct, ascending cholangiolitis and bile stasis of the liver.
3. Postoperative status following modified Whipple procedure with intact surgical anastomoses.
4. Massive basilar atelectasis, right lower lobe.

Secondary findings were mild cardiac hypertrophy, mild arteriosclerosis of coronary, aorta and renal arteries, chronic cystitis and pyelonephritis of low grade, leiomyomata uteri and nodular goiter.

Of special interest is this question. Is the carcinoid tumor of the papilla of Vater a completely independent and unrelated finding, or is it possible that in some way it is related to the multiple neurofibromatosis? It is interesting that, in addition to the abnormal pigmentation and the neurofibromas described in von Recklinghausen's disease, there are several different types of bone lesions, neurilemmomas, meningiomas, angiomas, lipomas, optic nerve tumors, acoustic nerve tumors and chromaffin tumors which are frequently described in patients with von Recklinghausen's disease.¹ Between 5 to 20% of patients with pheochromocytomas also have multiple neurofibromatosis.² These tumors, pheochromocytomas, arise from cells which belong to the chromaffin system and are derived from the neural crest. Carcinoid tumors are believed to be

derived from the argentaffin cells which are found in the bottom of the crypts of Lieberkuhn and stain with silver salts. The origin of these cells is controversial. However, these cells also contain granules in their cytoplasm that stain with chromate salts and therefore they, too, belong to the chromaffin system, sometimes called the enterochromaffin.

Therefore, is it not possible that carcinoid tumors may also be related to multiple neurofibromatosis as a manifestation of the dysplasia of neuromesodermal tissues? In this condition, multiple neurofibromatosis, we have a true example of a hereditary disease associated with hamartomas. The term hamartoma has not met with general favor, mainly because the term is misused. However, as defined by Willis³ it is a valuable concept in our understanding of some of the manifestations of genetically determined disease. The carcinoid tumor in this case may well be a manifestation of the hamartial nature of multiple neurofibromatosis. Of particular interest is the fact that we had a similar case of multiple neurofibromatosis in a 43-year-old Negro male, who was autopsied in our department in 1949, in which a carcinoid tumor of the papilla of Vater was also encountered.

DR. RICHARD O. BICKS: I do not see how one could make a correct microscopic diagnosis on this patient. There are a number of factors in retrospect, which make things seem much clearer. The mass that was felt clinically was a dilated gallbladder fulfilling the old story of Courvoisier's law. Had this patient been observed serially we might have had some waxing and waning of the jaundice, some blood in the stools, intermittently as well as episodes of chills and fever that would have suggested an ampullary lesion. However, this is a submucosal lesion microscopically and hence not amenable to cytological methods of study or suggestive of the classic story of ampullary neoplasms. I cannot explain the long duration of the jaundice except to say that carcinoids are notoriously slow growing tumors and it is possible, although I think highly unlikely, that this has been present for the entire duration of eight years. Her episodes of pain, fever, nausea, and vomiting were most likely due to ascending cholangitis.

The marked elevation of the alkaline phosphatase could have indicated liver disease as well as the bony lesions of neurofibromatosis. The asthmatic bronchitis was not a part of the metastatic carcinoid syndrome. This was just incidental and she happened to have a carcinoid as a terminal lesion. Neurofibromatosis is often associated with neoplasms elsewhere in the body, particularly pheochromocytoma, and occasionally an increased incidence of carcinoma in my sources. Getting back to very basic physical diagnostic problems, this is probably a slow growing tumor. It produced a dilated gallbladder, which was palpable in the face of the clinical picture of biliary obstruction confirmed by biochemical tests. In chronic, recurrent, acute cholecystitis with choleli-

thiasis the gallbladder is small and shrunken, and this was about the only thing that made the story of gallbladder disease suspected. Neoplasms of the ampulla are the most optimistic tumors of that area in the sense that surgical five year survival rate with radical procedures is 50% in some series. This is in contrast with no five year survivals for true adenocarcinomas of the pancreas.

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President's Page



RALPH O. RYCHENER,
M.D.

Unless one has served on the Board of Trustees of TSMA, he has no idea of the tremendous amount of work and the weighty decisions handled by the Board each year. The Executive Committee of the Board administers a number of more routine matters and reports quarterly to the official Board. One must become a member of the Board of Trustees to realize the excellence of the leadership of the Executive Committee and how efficiently it functions between the quarterly meetings of the entire Board.

Due to the many complex problems facing medicine on the local, state, and national level, the responsibility of the officers and the Board of Trustees multiplies each year. In many instances, the Board has saved the House of Delegates untold hours of deliberation by researching many intricate problems in advance. Requiring study, investigation, and action, are matters on local, state, and national legislation, insurance plans, workmen's compensation laws, society participation in programs such as polio inoculation, clearing of releases on public statements, cost of medical care, finances, special meetings, requests for funds, matters requiring appointment of temporary committees, voluntary health agencies, codes of cooperation, veterans administration policies, and many other problems.

The Tennessee State Medical Association has been blessed in the past several years with men of devotion and willingness to carry the heavy responsibility of administering the affairs of the State Association.

The Executive office and the staff is the basic support of the President in carrying out his duties and without it, no President could manage the affairs of the Association and still continue the private practice of medicine. More than just a headquarters or business office, the Executive Director, Mr. Jack Ballentine, and the staff handle multiple duties and problems concerning all TSMA members. In addition to assisting in such items as those mentioned in the paragraph above, the headquarters staff prepares and correlates all communications, correspondence, meeting notices, minutes, records, finances, etc. Another important item is the matter of careful processing of grievances against physicians as submitted by members of the public. Our public service activities are carefully guided through the officers, committee chairmen, and staff members.

In addition, and perhaps in a separate category, but requiring consideration, is the planning, organization and supervision of the Association's annual meeting conducted each year in different parts of the state.

It is hard to visualize that just over ten short years ago, at a time when the political and economic affairs of medicine were not so hectic, our Association did not maintain a headquarters staff to the degree which is now necessary. Many committee meetings and a vast amount of administration and work are carried on through the headquarters office by the staff, answering to the officers, the committees, and the Board of Trustees. In addition, a considerable amount of travel upon the part of the officers and staff is necessary to conduct the affairs of TSMA. Special commendation should go to our Executive Director, Mr. Ballentine, for the efficiency of his management of our Headquarters and the staff which serves under him. The Public Service Director and Field Secretary, Mr. Jack Drake, literally covers our state several times annually in contacting member physicians on every conceivable problem relating to the affairs of the Association. In addition a staff of three secretarial helpers keep the wheels of this complex organization functioning smoothly. An Administrative Assistant to the Director has been authorized by the Board of Trustees. He is Mr. C. P. Maguire, who has considerable executive and administrative experience. Mr. Maguire is already at work for us. It will be illuminating to our members if each would visit our Headquarters at 112 Louise Avenue, Nashville, and learn at first hand what your Association is attempting to do for *you*. It becomes increasingly important for all TSMA members to become more closely acquainted with medicine's problems and activities.

Ralph O. Rychener, M.D.

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AUGUST, 1960

EDITORIAL

PROPHYLACTIC CHOLECYSTECTOMY

The patient who has the characteristic pain and indigestion in association with a gallbladder containing stones, has an 80 percent chance of cure following the removal of the gallbladder, and incurs a minimal mortality risk of less than one percent. When the individual does not have pain but simply vague indigestion, the chance of cure is not quite so excellent. Under these latter circumstances it is helpful to have knowledge of the ordinary course of events noted in an individual with gall stones, who does not agree to cholecystectomy.

There are some who suggest that the risk of future carcinoma of the gallbladder is in itself valid reason for cholecystectomy. Others stress the hazard of other complications, such as recurrent cholecystitis, ascending cholangitis, perforation of the gallbladder, obstructive jaundice, and pancreatitis.

In an attempt to clarify some of these unanswered questions, Lund¹ reports, from

Denmark, his observations on 526 patients who had cholelithiasis, who were not subjected to cholecystectomy, and whose course had been followed for periods of time varying between 5 and 20 years after the diagnosis of cholelithiasis was made. The ratio of women to men was three to one. About 50 percent of the women and 30 percent of the men developed severe symptoms or complications during the years of the observation. Those who had severe symptoms at the time of the initial admission were more apt (36 to 39 percent) to develop complications later than those in whom the initial symptoms were very mild (18 percent).

Only three patients (0.6 percent) later developed carcinoma of the gallbladder. A total of 14 (2.7 percent) died from 1 to 16 years after the diagnosis of cholelithiasis was made from complications such as recurrent acute cholecystitis, liver abscess, necrotizing pancreatitis, gallbladder ileus, in addition to those with carcinoma of the gallbladder.

The recommendation of cholecystectomy for a patient with symptomatic or even asymptomatic cholelithiasis, is based on the observation that even in asymptomatic patients one-third to one-half later develop severe symptoms, acute cholecystitis or stones of the common duct. The over-all mortality from cholelithiasis is 2.7 percent and in the group older than 60 years, it was in excess of 7 percent.

Although the risk of future development of carcinoma of the gallbladder is less than one percent and perhaps should not, *per se*, be the reason for recommending cholecystectomy, the fact remains that the surgical mortality risk in patients with cholelithiasis is certainly no greater than the risk of developing carcinoma of the gallbladder, a completely incurable condition. When one reviews the morbidity of the disease, the mortality rate of about 3 percent, the rate of complications of 20 to 40 percent, cholecystectomy in the relatively good-risk patient and in the hands of a competent surgeon with good hospital facilities, passes from an optional to an obligatory procedure.

A.W.

Reference

1. Lund, Jargen: Surgical Indications in Cholelithiasis, *Ann. Surg.* 151:153, 1960.

POLITICAL ACTIVITIES OF THE MEDICAL PROFESSION

The campaign for primary election is over and this ends the matter insofar as our representation in Congress is concerned. A newspaper in Nashville has made the statement that 80,000 letters recommending certain candidates had been mailed to patients by doctors of the state in this past campaign.

In this state, unfortunately, the circumstances were such that political capital was and *undoubtedly* will be made out of the investigation of pharmaceutical houses and their practices. Already collusion with the doctors has been hinted at in some quarters. Though the A.M.A. has urged that political activity on the part of doctors be stepped up everywhere, it is a safe wager that Tennessee will be over-played and the other 49 states be forgotten in the national campaigning of at least one politician.

There can be no let-down in political activity on the part of the medical profession for the good of the very electorate that will criticize it most bitterly. Fortunately we have come a long way. Surveys in certain areas before 1950 disclosed a good number of physicians unregistered to vote and that 22 per cent did not vote. In 1952 the Women's Auxiliary of the T.S.M.A. did a wonderful job in getting physicians and their wives to the registration offices and to the polls. The activities of the present are not new, this is important to the knowledge of the younger members of the profession, who were undergraduate or graduate students at the time and interested only in the scientific pursuits of their calling. When medical care was not threatened by politicians, the dereliction of the doctor as a citizen was overlooked on the excuse that he was busy seeing sick folk. Then threats to these sick folk appeared on the horizon and he needed to take a more active interest in politics to protect his patients.

The coming national campaign will surely play up medical care, for the politician must appeal to the purse for votes. Items of foreign policy are but mere abstractions to probably 85 to 90 per cent of the voters. "Free" medical care, shorter work-weeks and increased hourly wages will be the touchstone to a successful campaign.

To those of you who accuse me of looking for bogeymen under beds, may I suggest you resurrect, as I have, the dishonest 80 page "Training Kit for Leaders" on the "Administration Health Program" published by the Democratic National Committee (1950). It is the most cleverly written opprobrious collection of purposeful misinterpretations of statistics and statements out of context I have ever read. From this one might guess that as of 1950 medical care in the United States was as of 1900. (As I commented editorially on this "Kit" in 1950, there appeared an advertisement in a Nashville newspaper "published as a public service by CIO National Health Committee"; the context of this advertisement obviously came from the "Kit".) The "Kit" posed 37 questions and in parallel column answers for the door-ringing campaigner. Under "Outlines for your Audiences" were the following: "If you are a Housewife"; "If you Live on a Farm or in the Country"; "If you are an Industrial Worker"; "If you are a Negro"; "If you are a Business Man".

It seems worthwhile to have recalled a decade ago in this respect. From all indications, in terms of precise organization, the coming national campaign will be to the campaign of a decade ago as, intercontinental ballistics is to B-17 bombing. Medical care is too emotional a topic to be overlooked by the politician. It is a vote getter! It is likely that we will learn that we are a second rate nation medically speaking as we are a "second rate nation in terms of defense."

Can the medical profession do anything to counteract the almost certain dishonest presentation of what may even be factual? (For obvious reasons I was not in the fray with letters to patients.) With the national elections in the offing, is it worthwhile to evaluate patients' reactions to suggesting a vote for a given candidate or party? Some patients objected—how large a segment objected? Nothing can be done without criticism—that is certain! The question is, does the good outweigh the bad? There are slightly over 200,000 physicians in the Country. After subtracting those in training and many of those in research, teaching and governmental services, we may be speaking of only 150,000 or less physicians in

daily contact with the electorate. If by contrast we take organized labor alone, there are 15,000,000 union members a proportion of one doctor per 100 union members, and if we use the figures of 3 married to one single we may say there is one doctor per 170 "union" voters. The farm population consists of approximately 21,000,000 persons or one doctor per 150 of this segment of our people. These figures are quoted to take a realistic look at the probability of a physician's exhortation changing any more than a minuscule proportion of votes in groups which have positive promises of getting things "free" or are already doing so. If the change of several votes is outweighed by giving the politician ammunition with which to blacken the professional eye by inuendo of ulterior motives—financial or otherwise—is this the road to take?

Could the campaign be rather one of education of patients,—not education on a highly intellectual level, but rather one on the level of practical politics. How much will be taken out of the pay envelope for governmental participation in medicine, not only *directly* but *indirectly* in hidden taxes? How much of the cost of TV set, car, or boat represents hidden taxes over and above the sales tax? What are the true statistics of the ill not receiving adequate medical care? What would a health insurance plan if part of Social Security do to retirement benefits? What will be the effect of "free hospitalization"—pressure of patients to be admitted vs. available beds? If x-ray and other services become "free" what will be the results in terms of their proper use—again pressure of patients vs. selected use? (There have been reports that at times in Great Britain x-ray studies may have to be delayed several weeks for appointments.) What will be the effect of the inevitable ascendancy of the specialist in governmental medicine upon adequate medical care? As the pen-pushing, frustrated family physician is demoted more and more (as in Great Britain) to a screening automaton like the Medical Officer with Troops, what will stimulate him to cajole or force the patient to continue the digitalis or insulin ordered by the "big" doctor in white at the shiny medical center? Will he continue to have

the sympathetic interest and understanding to give the psychiatric support upon which at least a half of his patients are dependant? What will be the effect on the much discussed care of the patient as a whole? These intangibles are more difficult to present than the promises of "free" medical care, but these are the items patients will miss when it is too late—they cannot be bought! Good medical care will go "down the drain", and mechanistic medicine so satisfying to many specialists, so appealing to the impractical idealist and theoretician, and completely discounted or ignored by the political demagogue, will be promised to the electorate! Can the voter by education be shown that sympathetic human relationships (doctor-patient relationships) are needed more in day to day living than expenses paid in hospitals, laboratories and consultants' offices?

The appeal to the voter must be put on a selfish basis to compete with the appeal to the purse. It will be difficult to portray some of these things, but there may be enough data in the world to give a good writer the material for vignettes for the literate,—possibly even pictorial or cartoon books for those of limited intellectual capacity but who still vote. It may well take a "sob-stuff" approach with poetic license to put this across; but why not—what hospital is without a sob-story every day?

I hope my questions will not be thought defeatist. Let every doctor contribute to the campaign fund of the candidate of his choice. Let every doctor discuss candidates in personal conversation with patients if he finds a willing listener. After that, what is the best approach? With a malignant process, one must decide between surgery and x-ray therapy. Should the approach be suggestive of the voter's inability to make a choice and need for help in selection of a candidate? Or should it be an education on issues (mailed with the monthly statement) not in platitudes but in pure selfish appeal to the patient, for one may rest assured the politician's appeal will be selfish in terms of the purse—"free" medical care?

R. H. K.

Special Item

Resolution No. 5 pertaining to The National Foundation was introduced in the House of Delegates of the Tennessee State Medical Association in April, 1960. This resolution had to do with The National Foundation's Patient Aid Program at the local chapter level. The delegates of the Tennessee State Medical Association to the American Medical Association were instructed to introduce a resolution at the annual session in Miami in an effort to obtain the backing and the national policy of the American Medical Association to apply as a set of guides for all medical societies.

A similar resolution was presented to the AMA House in 1959, and the action was referred to the AMA Committee on Relationships Between Medicine and Allied Health Agencies for a further study and further meetings with the delegates from Tennessee and The National Foundation representatives.

At the Miami, 1960, meeting of AMA, a substitute resolution, closely paralleling the Tennessee resolution, was submitted by the AMA Committee on Relationships Between Medicine and Allied Health Agencies. Since this broad national action applies to many National Foundation local chapters and county medical societies, the substitute resolution is presented for information:

WHEREAS, The American Medical Association is aware of the valuable contributions of The National Foundation in the field of poliomyelitis through research, professional education and *financial assistance* for certain aspects of patient care in the past; and

WHEREAS, The American Association is ever anxious to extend cooperation and assistance to any agency or group interested in the health of citizens; and

WHEREAS, The Tennessee State Medical Association desires the American Medical Association's assistance in formulating guides for physicians involved in *medical care* programs in local chapters of The National Foundation, and for other similar agencies in the health field which render direct aid to patients; therefore be it

RESOLVED, That the following statement of policies for guidance of state medi-

cal associations be adopted by the American Medical Association, and be transmitted to all constituent associations with the recommendation that they be adopted by all component medical societies.

1. That members of the Medical Advisory Committee to The National Foundation at the Chapter level be selected from a slate of names furnished by the county medical society.
2. That it should be the function of the Medical Advisory Committee to supply a detailed report to the county society at least once annually concerning the actions of the committee.
3. That the following basic principles should govern the relationships between patients concerned, members of the component medical society, and The National Foundation's local chapter:

(a) In order for the *Medical Advisory Committee* to discharge its functions with The National Foundation chapter and the component medical society, the Chairman of this Committee automatically shall be a member of the Executive Committee of the local chapter of The National Foundation if such exists in the county.

(b) The Expenditure of National Foundation local chapter funds for *financial assistance* for medical care and for professional education should have the approval of the Medical Advisory Committee. Determination of the extent and degree of eligibility for *financial assistance* for medical care should be made by the Medical Advisory Committee. In economically borderline cases, the Medical Advisory Committee should determine to what extent the local chapter may assist in the payment of paramedical services.

(c) The National Foundation should make no payment for physicians' services, except as outlined in its memorandum dated August 1959. (See Addendum A). Fees for physicians' services rendered to patients will be arranged privately between the patient and physician. The necessary steps should be taken to clarify this point with chapter members, the general

public and the patients concerned.

(d) Doctors who agree to serve on such Medical Advisory Committees should be aware of the responsibilities attendant upon such positions and offer constructive leadership in this respect.

Functions of Medical Advisory Committees

6. Recommend and arrange for qualified medical consultants to review patients where some special problem exists or where there is a difference of opinion between the Chapter Medical Advisory Committee and the attending physician, as to the nature of Treatment planned for a patient for which Chapter assistance is requested. (Consultants reviewing patients at the request of the Medical Advisory Committee may be reimbursed by the chapter. This is the only instance in which Chapters may pay medical fees.)

This substitute resolution was adopted by the Reference Committee of the AMA making it the national policy. The Reference Committee unanimously stated that the solution of the local problems that arose in Tennessee between county medical societies and local chapters of The National Foundation is a constructive and useful one which may serve as a guide to other local medical societies in their relations with other local chapters of The National Foundation.

Every county medical society in Tennessee should be thoroughly cognizant of the above resolution in order that this set of guides and regulations can be used in the establishment of medical advisory committees to The National Foundation, wherever such is necessary and desirable.

If any member or officer of any county medical society in Tennessee desires further clarification, information can be obtained through the TSMA Headquarters Office.

Jack Ballentine,
Executive Director T.S.M.A

dean of the Vanderbilt University School of Medicine, died on July 1 in Vanderbilt Hospital after an illness of six months.

Dr. Rollin A. Daniel, 85, Nashville, died on June 20 in a Franklin Infirmary.

Dr. C. W. Green, 95, Harriman, died July 11 in a Harriman Hospital.

Dr. James Clagett Fly, 77, Centerville, died June 29 at St. Thomas Hospital at Nashville.

Dr. T. A. McAmis, 78, Lawrenceburg, died June 24 in a Franklin hospital.

Dr. David J. Stump, 48, Chattanooga, died July 11 in Raleigh, North Carolina.

Dr. Jackson H. Barnett, 81, formerly of Chattanooga, died July 4 at a hospital in Lake City, Florida.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Chattanooga-Hamilton County Medical Society

The Society's regular monthly meeting was conducted on August 2nd in the Interstate Building. The scientific program consisted of a paper entitled "Lineal Healing After Pelvic Surgery" by Dr. Samuel S. Binder. "The Clinical Significance of Diverticulosis" was the subject of a paper delivered by Dr. Fred Marsh. The meeting was held in the Interstate Building.

Knoxville Academy of Medicine

The Society met on July 12th in the Academy of Medicine Building. Dr. John Winebrenner was in charge of the program. The Society also voted on amendments to the Constitution and By-Laws.

Warren County Medical Society

An x-ray examination of the lungs every six months is one of the best means of making an early diagnosis of lung cancer, Dr. Hollis E. Johnson, Nashville, told the Warren County Medical Society at a meeting held at the Hillcrest Restaurant on June 20th. Dr. Robert Sadler, Nashville, spoke to the group on the prevention of lung cancer.

DEATHS

Dr. D. J. Zimmermann, 52, Morristown, died on June 20 as a result of heart attack.

Dr. W. F. Boyd, Cordova, died on July 3rd.

Dr. Sam L. Clark, Sr., 61, Nashville, head of the department of anatomy and former acting

NATIONAL NEWS

The Month in Washington (From the Washington Office, AMA)

Congress returned to work this month to take up its unfinished business, including

the controversial issue of health care for the aged, an atmosphere dominated by election-year politics.

The three or four week, tag-end session of Congress loomed as one of the most important meetings in the past decade as far as possible impact on the medical profession is concerned.

The lawmakers are slated to decide whether to embark the Federal government on a course that could threaten the private practice of medicine, or to adopt a voluntary program that would pose no such danger.

The omnibus social security bill approved by the House Ways and Means Committee was easily cleared by the House, 381 to 23, and sent to the Senate Finance Committee, which held two days of hearings. The measure contained a voluntary, Federal-State program for assisting needy aged persons meet their health care costs. Both the Administration and the American Medical Association endorsed the House measure as in keeping with the concept of giving the states prime responsibility for helping their citizens, for aiding those who are most in need of help, and for avoiding the compulsory aspects of health plans involving the social security mechanism.

A vote by the Finance Committee, headed by Sen. Harry F. Byrd, (D., Va.) was scheduled shortly after the Senate resumed operations in August. Whatever action the Committee took, however, proponents of schemes such as the Forand bill to provide a compulsory, federal medical program promised a determined fight on the floor of the Senate.

In the event Congress should approve a government medicine plan, opponents were counting on a Presidential veto to kill the measure. The Chief Executive repeatedly has asserted in strong language his all-out opposition to any compulsory plan for health care financing.

At the Senate Finance Committee hearing, Arthur S. Flemming, Secretary of Health, Education and Welfare, renewed the Administration's flat stand against the social security avenue to financing health costs. Such a plan, he said, would inevitably lead to pressures for expanding the benefits and lowering or eliminating the age

requirement. Under such circumstances, a 15 percent or 20 percent social security payroll tax would not be too far off, he said. "We believe it is unsound to assume that revenue possibilities from a payroll tax are limitless."

Dr. Leonard W. Larson, President-elect of the American Medical Association, told the Committee the House bill is the "antithesis of the centralized, socialized, statist approach of the proposals advocating national compulsory health insurance."

"To those critics who call this program modest, we say that fiscal irresponsibility, unpredictable cost and maximum nationalization are not the accepted criteria for good legislation," he testified.

A spokesman for the insurance industry pointed out "giant strides" made by private health insurance in recent years in covering aged persons. E. J. Faulkner declared that one of the most prevalent and erroneous assumptions on the matter is that most of the aged aren't able to contribute to financing their own health care costs.

The Social Security health bills, he said, "would impair or destroy the private practice of medicine, would add immeasurably to our already crushing tax burden, would aggravate our severe public fiscal problems, and would entail other undesirable consequences."

In other testimony, the AFL-CIO again urged enactment of a Social Security health bill; the American Optometric Association and the International Chiropractors Association urged that health benefits included in any bill include the services of osteopaths and chiropractors, respectively.

On another legislative proposal of interest to the medical profession—the Keogh-Simpson bill—a Senate debate was scheduled this month. Sen. Gordon Allott, (R., Colo.) said in a Senate speech that "I believe that this legislation will have the overwhelming support of this body."

The bill, which would encourage retirement savings by the self-employed such as lawyers, small businessmen and physicians, has already been approved by the House. The Senate bill, voted by the Senate Finance Committee, would require participating self-employed to establish retirement plans for their employees.

H.R. 12580—The Mills Bill

The Mills Bill (H.R. 12580) as it is called, has a new medical care title. It is a grant-in-aid program providing medical benefits for the "near needy" aged with local determination of eligibility and administration. It is in general accord with AMA policies. The following is a brief outline of the new title.

Purpose. A new title of the Social Security Act is established (Title XVI) which will initiate a new federal-state grant-in-aid program to help the states assist low-income aged individuals who need help in meeting their medical expenses. Participation in the program will be at the option of each individual state and will only be effective after June, 1961, upon the submittal of a plan which would meet the general requirements specified in the bill.

Eligibility. Persons sixty-five years of age whose income and resources—taking into account their other living requirements as determined by a state—are insufficient to meet the cost of their medical services will be eligible. Persons eligible for payments under this program are not eligible under the other federal-state public assistance programs.

Scope of Benefits. The scope of benefits provided will be determined by the states. The federal government, however, will participate under the matching formula in any program which provides any or all of the following services up to the limits specified:

- (a) Inpatient hospital services up to 120 days per year,
- (b) Skilled nursing-home services,
- (c) Physician's services,
- (d) Outpatient hospital services,
- (e) Organized home care services,
- (f) Private duty nursing services,
- (g) Therapeutic services,
- (h) Major dental treatment,
- (i) Laboratory and X-Ray services up to \$200 per year,
- (j) Prescribed drugs up to \$200 per year.

Federal Matching. The federal government will provide funds for payments for benefits under an approved state plan in accordance with an equalization formula under which the federal share will be between 50 percent and 65 percent of the costs, depending upon the per capita income of

the state. (This is the same formula which applies now on that part of old-age assistance payments between \$30 and \$65 a month.) A program under the new title cannot be more liberal than a medical program under a state's old-age assistance program, and there can be no reduction in existing public assistance programs to finance this new title. The payments under this program will be to providers of the medical services.

Cost and Number of Persons Affected. This new title will provide actual medical services for an estimated one half to one million persons age 65 and over who will be ill during a year. State plans could provide potential protection to as many as 10 million persons whose financial resources are such that if they have extensive medical expenses, they would qualify. The estimated cost is \$185 million to the federal government and \$140 million to the states in a full year of operation, for a total cost of \$325 million, after the states have had an opportunity to develop these programs.

MEDICAL NEWS IN TENNESSEE

Tennessee Physician Named President-Elect of American College of Chest Physicians

New Officers have been elected for the American College of Chest Physicians to hold office during the 1960-61 term. The president-elect is Dr. Hollis E. Johnson, professor emeritus of clinical medicine, Vanderbilt University School of Medicine in Nashville.

The American College of Chest Physicians is an International Society with membership in 50 states as well as 89 countries and territories.

Dr. John Youmans Named Scientific Director of A.M.A.

The A.M.A. has announced that Dr. Youmans has been named director of the American Medical Association's Division of Scientific Activities. He succeeds the late Dr. Edward L. Turner in directing the division created in 1959 to coordinate all scientific activities of A.M.A. Dr. Youmans joins the A.M.A. from his position as technical direc-



tor, U. S. Army Medical Research and Development Command, Office of the Surgeon General. He will assume new duties on a part-time basis in August and full-time in October.

Dr. Youmans is a member of the Nashville Academy of Medicine and T.S.M.A. He joined the faculty of Vanderbilt University School of Medicine in 1927, where he became full professor of Medicine in 1942. As Colonel he was in charge of nutrition in the Surgeon General's Office during World War II. He served as Dean of the Medical School of the University of Illinois from 1946-1949. Then he returned to Nashville to become Dean at Vanderbilt from 1949 to 1958, the time of his retirement. He has had interests in medical education for years, and served as Treasurer of the Association of American Medical Colleges from 1946-1956 and was its President in 1956-57.

Dr. Youmans served for many years on the A.M.A. Council on Nutrition. He will bring to the A.M.A. and its scientific activities a breadth of experience—from basic and clinical research and from voluminous medical writing, as a brilliant teacher (as many a reader will recall), as one who has contributed much in the field of American medical education, and as an able and tireless administrator.

American Board of Abdominal Surgery

The American Board of Abdominal Surgery has *not* been approved by the Ameri-

can Medical Association as a special examining board. A letter of solicitation mailed last month stated that the Board was negotiating for sponsorship by the Section on Surgery of the AMA. The AMA has emphasized that to date, the AMA Section on Surgery has neither approved nor disapproved the Board.

News of Interest to Physicians Concerning Workmen's Compensation

- (Q) May an employee choose not to be covered by the Workmen's Compensation Law?
 - (A) Yes—by giving notice to the employer and filing a duplicate of such notice with proof of service on the employer attached with the Division of Workman's Compensation, Dept. of Labor. (Par. 50-904—Page 4)
- (Q) If, in the course of his employment, an employee is injured in another state, is he covered by the provisions of this law?
 - (A) Yes (Par. 50-917—Page 7)
- (Q) If injury is such to require specialized medical attention that is not available in the community where injured employee resides, can employee be required to go where such care is available?
 - (A) Yes—employee can be required to go at the request and expense of employer to nearest location at which such specialized medical care is available. If employee refuses to comply with request his right to compensation shall be suspended and none will be due and payable while refusal continues. (Par. 50-1004—Page 9)
- (Q) In case of death where there is a dispute as to the cause of death, may an autopsy be required?
 - (A) Yes—any interested party may require an autopsy, cost of which is to be borne by party demanding autopsy. (Par. 50-1004—Page 9)
- (Q) Is there a time limit within which claims for compensation must be filed?
 - (A) Yes—claim must be filed within one year from time of accident re-

sulting in injury or death. (Par. 50-1003—Page 8)

(Q) Are there any guiding principles to be used in deciding whether a hernia is the result of injury?

(A) Yes—the law outlines 5 criteria that must be met for a hernia to be considered as the result of injury. (Par. 50-1009—Page 14)

The paragraph and page numbers in the questions and answers above refer to the State of Tennessee Workmen's Compensation Law revised to July 1, 1959, copies of which have been mailed to all physicians in Tennessee.

University of Tennessee College of Medicine

Dr. James G. Hughes, professor of pediatrics at the University of Tennessee College of Medicine, has been named chief of the division of pediatrics. He succeeds Dr. Frank Thomas Mitchell who has retired. Dr. Hughes is widely known for his research contributions.

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Dr. Roland H. Alden has assumed the duties of acting dean of the University of Tennessee School of Biological Sciences, succeeding Dr. T. P. Nash, Jr.

PERSONAL NEWS

Dr. Robert B. Clark, III, Chattanooga, is associated with **Drs. H. D. Long** and **James H. Spaulding, Jr.**, Chattanooga, in the practice of medicine.

Dr. Jean M. Hawkes, Memphis, recently addressed the Memphis Lay Diabetic Association at the Methodist Hospital.

Dr. J. T. Evans, Chattanooga, has announced the opening of his office for the practice of medicine in the specialty of eye, ear, nose and throat.

Dr. Allen M. Clague, Jr., Kingsport, announces the opening of his office for the practice of medicine in that city.

Dr. W. Eugene Anderson, Dyersburg, recently addressed the Rotary Club on the subject of "Medical Care to the Aged."

Dr. W. G. Frost, Elizabethton, has been elected chief of staff of the Carter County Memorial Hospital. Serving with him will be **Dr. E. L. Caudill, Jr.**, vice chief of staff; **Dr. Joyce May**, secretary-treasurer; and **Dr. Hoyle Bowman**, **Dr. John Knapp**, **Dr. Dillard Sholes** and **Dr. Joyce May**, credentials committee.

Dr. James C. Roberts, Jr., Knoxville, is moving

to Southern California to enter private practice.

Dr. Warren C. Ramer, Lexington, has been named chief of staff of the Lexington-Henderson County Hospital. **Dr. Maurice N. Lowry** was named vice-chief of staff, **Dr. Jack C. Stripling**, secretary and **Dr. Cornelia Huntsman**, assistant secretary.

Dr. Robert Spalding, formerly of Boston, has been named staff psychiatrist of the Chattanooga Guidance Clinic.

Dr. Kenneth L. Roark, formerly of Elizabethton, will be associated in Johnson City with **Dr. Lewis F. Cosby** in the practice of pediatrics.

Dr. E. M. Lashe, Knoxville, recently addressed the Athens Rotary Club.

Dr. C. Harold Steffee, formerly of Oak Ridge, has begun work as the new director of laboratories at Methodist Hospital in Memphis.

Dr. John J. Killeffer, Chattanooga, announces the association with him of **Dr. C. Robert Clark** in the practice of orthopedic surgery.

Dr. J. A. Crisler, Jr., Memphis, has been elected to the Board of Managers of Methodist Hospital.

Dr. Duane J. Davidson, formerly of Baton Rouge, Louisiana, has opened his office for the practice of medicine in McMinnville.

Dr. Wm. O. Green, Jr. has been named associate pathologist of the Jackson-Madison County General Hospital at Jackson.

Dr. Shelby O. Turner has joined **Dr. B. F. Allred** in the practice of medicine and surgery in Jamestown.

Dr. Robert Webster has joined the Giles Clinic in Gallatin.

Dr. Rudolph Landry, Chattanooga, recently addressed the Civitan Club where he spoke on the subject "Notable Characters in Medicine."

Dr. James J. Callaway, Nashville, has been elected chairman of the Board of Directors of the Middle Tennessee Heart Association.

Dr. Frank Thomas Mitchell, Memphis, a veteran of 43 years in the practice of pediatrics in Memphis and nationally known authority on child care, retired recently as chief of the division of pediatrics of the University of Tennessee College of Medicine. He was elected TSMA's "Physician of the Year" for 1959.

Dr. Frank E. Whitacre, Nashville, has been appointed chief of obstetrics and gynecology at Nashville General Hospital.

Dr. Wm. K. Frye, formerly of Etowah, has opened his offices for the practice of medicine in Benton.

The Chattanooga-Hamilton Health Council recently held a panel discussion on "Greater Nursing for Greater Chattanooga." Members of the panel included **Drs. George K. Henshall, Jr.**, **Harry A. Stone**, and **Jere W. Clark**.

Dr. J. T. Layne is the new chief of staff at Copper Basin General Hospital in Copperhill. **Dr. W. C. Zachary, Jr.** was named vice chief of staff and **Dr. W. R. Lee**, secretary.

Dr. Joseph W. Stephens, formerly of Natchez, Mississippi, has joined the staff of the Nautilus

Memorial Hospital at Waverly where he will be associated with **Dr. D. A. Sanders** and **Dr. J. C. Armstrong**.

Dr. Halden W. Hooper, Dickson, has joined the medical staff of the Goodlark General Hospital.

Dr. Joe T. Smith, Knoxville, has been named president of the Knoxville, Oak Ridge and Maryville Pediatric Association.

Dr. Jean C. Tarwarter, Chattanooga, has become associated with **Dr. George L. Rea** in Tazewell.

Dr. Harold A. Schwartz, Chattanooga, recently discussed birth control at the 12th annual health institute at the New Zion Baptist Church in Chattanooga.

Dr. Wm. C. Crowder has been elected chief of staff of the Blount Memorial Hospital at Maryville. **Dr. G. T. Proctor** was named vice chief of staff and **Dr. Cecil B. Howard** was re-elected secretary. Others named included **Dr. James N. Proffitt**, chief of surgery and **Dr. Julian K. Lentz**, chief of medicine.

Dr. Lewis W. Moore, Chattanooga, recently participated on the TV program entitled "Your Doctor Speaking."

Dr. Wm. F. Meacham, Nashville, recently lectured at the Kentucky Academy of General Practice at Park City. He also has been in Nuevo, Mexico where he has lectured at the University.

Dr. George Mayfield is the pathologist at the Maury County Hospital in Columbia. He began his services on July 1.

Dr. Hollis E. Johnson, Nashville, has been named president-elect of the American College of Chest Physicians.

Dr. John P. Fields has joined **Dr. Ray L. Dubuisson**, Nashville, in the practice of Pediatrics.

BOOK REVIEW

Breast Cancer, by **Albert Segaloff, M.D.**, Director of Endocrine Research, Alton Ochaner Medical Foundation, Associate Professor of Clinical Medicine, Tulane University School of Medicine. 257 Pages. St. Louis. The C. V. Mosby Co. 1958. Price \$5.00.

This is a collection of papers and transcriptions of panel discussions presented at the Second Biennial Louisiana Cancer Conference at New Orleans in January, 1958. The participants are nationally prominent figures in the field of breast cancer, including such workers as C. D. Haagenzen, Robert H. Huseby, Ian McDonald and Jerome Urban.

The conference was divided into four sections. Each section consists of the presentation of pertinent papers, followed by a panel discussion in which floor questions were answered by the panel members. Two sections treat problems in basic biology with papers on epidemiology, pathology, endocrinology, and metabolism as applied to breast

cancer. The section on treatment includes discussions by Haagenzen on indications for surgery, and Urban on the extended radical mastectomy operation. The status of radiation therapy is explored thoroughly by radiologists from three separate institutions. A final section on hormonal therapy presents the theoretical background and the practical problems encountered in this form of therapy.

Although now over two years old, the book presents enough background information and useful clinical material not subject to change, that it is of some current value.

Human Protozoology and Helminthology. By **L. R. S. MacFarlane**, Professor of Pathology, The Royal Army Medical College, London. 235 pages. Baltimore: The Williams & Wilkins Company, 1960. Price \$7.50.

This brief manual of parasitology is an abstract of material from Craig and Faust presented in skeleton form, to prepare students at the Royal Army Medical College for their "Diploma." Although the zoological outline is quite complete, clinical descriptions are nil and therapy is not discussed save for simple listing of remedies, many outmoded. Penicillin is recommended for amebic dysentery, the coarseness and darkness of pigment in oocysts is seriously utilized in decision of malarial species, and the only differential point given between typhoid and kala-azar is the presence of "dirty tongue" in the former. Echinococcal diagnosis contains a typical cryptic reference to "hydatid thrill" on abdominal examination, sufficiently intriguing to report that it is a peculiar trembling or vibratory sensation on palpating an echinococcal cyst (Stedman's Medical Dictionary, 19th ed., 1957). The text is liberally laced with references to individuals in bold-face type, often with date. There is not however, a corresponding bibliography to match.

As disappointing as the text is, words cannot amply communicate the beauty, dimension, clarity, detail and completeness of the many superb illustrations, frequently in color, by R. M. Leach. In this instance, a picture is worth far more than a thousand words.

Cancer of the Cervix. Diagnosis of Early Forms. Ciba Foundation Study Group No. 3. Edited by **G. E. W. Wolstenholme** and **Maeve O'Connor**. 110 pages. Boston: Little, Brown and Co., 1959. Price \$2.50.

"Cancer of the Cervix" represents the proceedings of a one day conference on selected topics by distinguished North American and European physicians published in booklet form. Small enough to carry in a coat pocket and concise enough to read in an afternoon, the study-group papers are authoritative, representing the latest word on this important subject. Each paper is adequately illustrated, well written and has a useful list of references following. The most interesting feature of this booklet is the discussion which follows each paper, being written in con-

versational form. This makes for easy, enjoyable reading and allows the reader to vicariously gain insight into controversial problems. The opening paper by H. Hamperl of the Pathological Institute of the University of Bonn defines "Carcinoma in situ" and classifies it into five groups morphologically. The second paper, from the Radiumhemmat, discusses the histopathological problems with early cancer and suggests the grouping of Ia and Ib. Optical and electron microscopy studies of intraepithelial squamous-cell epithelioma were presented by R. Moricard and R. Cartier of Paris. A preliminary report on an inquiry into the activity of certain enzymes present in vaginal fluid and their possible relation to cancer of the cervix was presented by J. G. Lawson. C. Kaufmann and K. G. Ober discussed morphologic changes of the cervix with age, pointing out the higher incidence of endocervical canal lesions in older women. P. A. Younger and A. Y. Kevorkian emphasize the value of the Schiller Test as a supplement to cytologic screening. A short communication by J. H. Muller on atypical hyperplasia of the endometrium concludes the study group. He attempted to "put a frame around the concept of Stage O endometrial carcinoma." This booklet is not a complete study of cancer of the cervix but it is not meant to be such. For those already familiar with the problem this brief presentation is worth reading.

ANNOUNCEMENTS

Post Graduate Course in Anesthesiology

A one-day course in Anesthesiology is offered by the Tennessee Society of Anesthesiologist in conjunction with the Vanderbilt University School of Medicine. The date is October 14; registration 8:30-9:00 a.m.

The American Urological Association Award

The American Urological Association offers an annual award of \$1,000 (first prize of \$500, second prize \$300 and third prize \$200) for essays on the result of some clinical or laboratory research in Urology. Competition is limited to Urologists who have been graduated not more than ten years, and to hospital internes and residents doing research work in Urology. The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association to be held at the Hotel Biltmore, Los Angeles, California, May 22-25, 1961.

For further information write to the Executive

Secretary, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland. Essays must be in his hands before December 1, 1960.

Program on Heart Disease

A postgraduate course in heart disease, with emphasis on newer diagnostic techniques, medical and surgical management will be conducted in the Cardiac Laboratory—B-4, Cincinnati General Hospital, University of Cincinnati on September 7-10. The program will consist of lectures, patient presentations, and panel discussions. Informal question and answer sessions have been planned in conjunction with the lectures and patient presentations. Members of the American Academy of General Practice will be given 20 hours Category I Credit for taking the course.

Physicians Recently Licensed in Tennessee

Rowlett, William M., Memphis
Hargrove, Joel T., Memphis
McKenzie, Jolly, Jacksonville, Fla.
Olin, Lester G., Maryville
Pender, John V., Jr., Memphis
Seeger, Frank L., Jr., Memphis
Wright, Warren K., Memphis
Nakamura, Fujie, Rossville, Ga.
Simmons, James C. H., Memphis
Gardner, Lawrence G., Jr., Fort Worth, Texas
Draper, Kenneth D., Jacksonville, Fla.
Cox, Jas. B., Memphis
Key, Robert C., Memphis
McMahan, Robert B., Del Rio
Parrott, Charles W., Jr., Memphis
Rutland, Eugene D., Jr., Memphis
Watkins, William T., Kingsport
Atria, Nicholas F., Nashville
Abney, Charles F., Alexandria, La.
Clark, Charles R., Chattanooga
Litton, Murray A., Memphis

Southern Society of Pediatric Research

The organizational and scientific meeting of the Southern Society for Pediatric Research will be held on October 29 and 30, 1960, at Vanderbilt University School of Medicine. The aims of the new organization will be to promote basic and clinical research oriented toward the field of pediatrics in the southern region and to serve as a forum for those interested in pediatric education. The meeting will be open. Full and part time members of Pediatric departments, practitioners and residents are invited. The membership will probably be elective. The deadline for submission of abstracts is October 1. Correspondence should be directed to Dr. Mildred Stahlman, Department of Pediatrics, Vanderbilt University School of Medicine.

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 3, Tennessee.

Locations Wanted

A 38 year old married physician. Methodist. Graduate Vanderbilt University. Desires Associate, assistant or clinical practice in Ob-Gyn in east or middle Tennessee community of 30,000 to 150,000. Available immediately. LW-346

A 36 year old married physician. Methodist. Graduate University of Arkansas. Desires private, associate of clinical practice in Ob-Gyn in east Tennessee community of 20,000-200,000. Available immediately. LW-363

A 46 year old married physician. Baptist. Graduate Tulane Medical School. Retiring from military service, desires to establish Ob-Gyn practice in Tennessee community of 50,000 to 100,000. Preferable clinical or associate practice. Available fall 1960. LW-364

A 28 year old married physician. Presbyterian. Graduate University of Tennessee. Desires assistant, associate or clinical general practice, location in Tennessee community of 5,000 or more. Available immediately. LW-370

A 32 year old married physician. Baptist. Graduate Medical College of Alabama. Desires clinical, assistant or associate practice in pediatrics in Tennessee community of 25,000-100,000. Available September 1960. LW-371

A 31 year old married physician. Catholic. Graduate University of Tennessee. Board eligible in general surgery. Desires clinical practice in general surgery in Tennessee community of 25,000 or more. Available immediately. LW-372

A 42 year old married physician. Protestant. Graduate University of Basel, Switzerland. Desires group, partnership or private practice in radiology in east or middle Tennessee community. Diplomate of the American Board of Radiology. Available immediately. LW-376

A 49 year old married physician. Episcopalian. Graduate University of Illinois. Desires private practice in psychiatry in Tennessee community of 10,000 or over. Available immediately. LW-377

A 49 year old married physician. Baptist. Graduate Vanderbilt School of Medicine. Now in general practice/surgery. Desires position as hospital administrator, director of professional education in hospital, administrative director in industry or insurance. Prefer location in or near large city but will locate elsewhere. Available immediately. LW-379

A 32 year old married physician. Methodist. Graduate Medical College of South Carolina.

Specializing in general surgery, with limited orthopedics, desires to locate in Tennessee community of 25,000-50,000. Will consider clinical, assistant or associate practice. Available December, 1960. LW-381

Physicians Wanted

Clinic in east Tennessee community of 4,000 has opening for general practitioner interested in Obstetrics. Hospital located in community. PW-128

Northwest Tennessee community of 1,200 (trade area 3,000), desires general practitioner. Nearest hospital 16 miles. Office space available. Near large recreational area. PW-129

Physician in northeast Tennessee community of 5,000 desires general practitioner to associate with him in practice in northeast Tennessee and southern Kentucky. Hospital located in community. Office space and some equipment available. PW-132

Physician in east Tennessee community of 6,000 desires an associate general practitioner. Age 25-35 with one year internship. New private office, examining rooms and equipment available. Hospital located in community. PW-134

Physician wanted in middle Tennessee community of 12,000 to assume established practice of M.D. who is going overseas. Two 25-bed open staff hospitals and completely equipped office. Good churches and schools. Close to good recreational area. Good agriculture and small industry area. PW-140

Fully equipped ten room clinic available in east Tennessee community of 5,000. New hospital. Clinic large enough to accommodate two physicians. All office equipment and records included. Present M.D. leaving for residency training. PW-141

Small southern Tennessee community of 700 in need of general practitioner to replace present M.D. who is retiring after 44 years service. Nearest hospital 15 miles. Close to large missile base. Good location. PW-142

Clinic in east Tennessee community of 5,000 has opening for Board eligible internal medicine man. Newly constructed, fully equipped clinic. PW-143

General practitioner interested in preventive and occupational medicine needed in industrial plant in east Tennessee community of 28,000. Office space and equipment furnished. Regular working hours, good salary, fringe benefits. PW-145

Small southern Tennessee community of 500 in need of general practitioner. No other physician in community. Office space and some equipment available. Nearest hospital 13 miles. PW-147

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The interview with the patient is basic to diagnosis and treatment. But to be a useful tool the physician's attitude toward the patient and his story must be emotionally correct, if not, the interview defeats its purpose. It will take time, experience and judgment for the physician to know himself, particularly in his reaction to the many and different patients in his practice. The family physician should read and re-read this paper on the doctor "himself."

Practical Aspects of Psychiatry for the General Practitioner (Himself)*

RICHARD C. PROCTOR, M.D.,† Winston-Salem, N. C.

The title of this presentation is a misleading one. I am sure that you expected to hear a paper on how one should deal with patients who suffer from psychiatric disorders. You probably expected certain tips on how to talk with patients about their emotional or family problems, on how to advise them about various aspects of their lives, and perhaps something about various drugs which are now available for the treatment of psychiatric disorders. I am sorry that you may be disappointed, for I should like to share with you today some of my thoughts and some of my philosophy concerning Practical Aspects of Psychiatry for the General Practitioner *HIMSELF*. That is, something about the physician's own personality, his own psychodynamics and his own problems, which might interfere with his relationships with his patients whether they be psychiatric, medical, surgical, obstetrical or what-have-you.

You also probably expected someone with a Viennese accent, black horn-rimmed glasses, a beard or goatee, carrying a couch on his back, and a paper about sex. In this, I am sure, you are disappointed also.

Since the interview with the patient, re-

gardless of what his disorders be, is probably the most effective diagnostic and therapeutic tool at a physician's disposal, its purposes and its technics require unremitting attention. There are two basic initial assumptions which need to be made explicit concerning an interview with a patient, particularly an initial interview. The physician first intends to ascertain whether or not the patient or subject is sick, and he works conscientiously toward a full understanding of its nature. We have all been taught, and we have learned through our medical careers that the basic history in any patient is the most effective diagnostic tool available to us, and certainly no therapy can be conscientiously undertaken until a diagnosis is made. When the patient's illness has been clarified, the physician believes that he can help in its palliation or in its correction. The physician soon should recognize that what he feels cannot be disguised, and since his own interpersonal relationship with the patient is the area in which the diagnosis takes place and therapy proceeds, he must devote a major effort to adjusting his own feelings, and he should not waste his own and the patient's time by dissimulation, subterfuge or pretense. Consequently, an analysis of the attitudes of the physician is necessary to an effective discussion of this type, and as we get deeper and deeper into the subject of interviewing or history taking, we find that we are talk-

*Presented at the meeting of the Tennessee Academy of General Practice, April 11, 1960, Nashville, Tenn.

†From the Department of Psychiatry, Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N. C.

ing more and more frequently about the doctor, about his own attitudes, about his own feelings and about his own behavior. If we admit, as I think we must, that the interpersonal relationship between the physician and the patient is the most important diagnostic and therapeutic tool in the physician's possession, we must therefore think more and more about the professional use of self. Whenever a discussion of any kind turns from objects to people and thence from people to oneself, it becomes more and more charged with emotion. We tend to become sensitive, defensive or retaliatory. Yet, it is precisely with this personally touchy area that we want to deal today.

When we receive instruction in a motor skill such as golf, tennis, or anything else, we expect to have wrong movements; we expect to make mistakes, and we expect to have improper coordination pointed out to us by whomever is teaching, and to practice those exercises which will improve our performance. One of the most important steps in the practice of medicine and in learning to practice the art of medicine is to similarly desensitize ourselves to objective discussions of our attitudes, our viewpoints and our feelings.

Let us begin with certain attitudes and essential technical points which can be discussed in answer to a few questions. For example, how should a doctor feel toward a new patient? Generally speaking, conscious anticipatory friendliness is a helpful psychological stance to assume immediately before meeting the patient. One should think to oneself "this is a person that I am going to like, and this is a person whose acquaintance I want to make. This is a person that I want to help." I have frankly found that one of the easiest ways to open an interview with a patient is not to say, "Mr. Jones, what can I do for you?" but rather, "Mr. Jones, how can I help you." What should the doctor's attitude be toward himself? The physician who assumes an attitude of quiet confidence, of self-esteem without conceit, and assurance without bravado, impresses a patient favorably, and he soon capitalizes upon the aura with which the layman surrounds a physician. The physician should not hesitate to express his friendliness and his interest with both facial

expression and manner. He is not a mortician, and his entry into the sick room should bring hope and confidence, not gloom. On the other hand he is neither a "Glad Hand Charlie," and dignity, restraint and gentleness are expected of him.

Another important aspect is what assumption should the doctor make regarding the person that he is about to see. If the physician assumes that the patient is ill, he may be misled or he may be asked to defend his belief with nothing better to offer than the fact that the other individual's physical presence in either hospital or in the physician's office denotes this. It is also apparent that such an initial assumption materially colors the doctor's interpretation of anything that the patient says and does, and it may lead to unwarranted conclusions on the part of the doctor. Since the subject may be in the hospital against his will or since he may have been forced to come to the doctor's office, the doctor can easily jeopardize his position as a potential friend and unprejudiced observer by tacitly agreeing with the views of those responsible for the patient's admission or position. On the other hand, the initial assumption that the patient is in all respects normal has several advantages. The physician approaches the case with a genuinely open mind, and when he decides that the patient is in fact ill, it is on the evidence of his unbiased observation, the testimony of his own senses, and the results of various laboratory and diagnostic techniques which he has utilized. Hearsay evidence, no matter how plausible, can always be effectively discounted by the patient. The physician should employ the finest and nicest judgement when reviewing the material of this kind with the patient. The patient who believes that he is ill has been for varying periods exclusively in the presence of people who share in the belief that he is sick or who thoroughly understand the patient's views in this regard. To me, a physician who is not a party to this unspoken agreement may be a challenging experience to the patient and represent a misunderstanding which he feels obliged to correct at the earliest opportunity. This means that he employs and calls his illness to the attention of the doctor, and he persuades the physician that he is a sick per-

son. This will give valuable insight to the doctor into the basic personality of the patient and also perhaps into the nature of the disorder. The physician's gaze should be directed at the patient in much the same fashion as if he were being introduced socially, and his facial expression and manner should continue to convey friendly interest, undivided attention, and appropriate pleasure at the opportunity of meeting the patient.

Of particular importance, of course, throughout medicine, is the relationship of the physician with the patient, and physicians may distort their relationship with patients in obvious or subtle ways. Some physicians attempt to maintain absolute impassivity in every contact with patients, arguing that this is the only means of obtaining an undistorted estimate of the patients' true state. Many other physicians attempt to fool themselves into thinking that remaining impassive and noncommittal is the only way they can be truly scientific. The question, however, arises whether or not this is an unconscious defense used to avoid personal involvement in the patient's ideas and feelings, to prevent the development of anxiety in the physician and to hide uncertainty and perhaps bewilderment of the physician. Neither tolerance or understanding is necessarily acquired in the process of higher education. In dealing with some patients, the doctor who finds his opinions challenged, his moral code outraged, his esthetic sense revolted, or his own unresolved conflicts reactivated, may feel that the only course he can pursue is to consider the patient a de-humanized object. By insulating himself from the patient, he is able to make an objective appraisal of the symptomatology; and, if this accords with one of another of the clinical reaction patterns, he can descriptively classify the patient. Still working as a nonparticipating observer, he may achieve success in certain cases through the employment of somatic therapies. He cannot, however, be said to have ever understood the patient in the fullest sense of the word.

There are many other devices available for avoiding involvement with the patient. He may, for example, defend himself by an emotionally over-determined belief in the

influence of heredity or constitution. Since he cannot alter the patient's genes, he is spared the discomfort of therapeutic failures. This is called, perhaps, best "the Sow's Ear Philosophy." He may elaborate attitudes of cynical indifference, based on convictions as to the unregenerate qualities of human nature, the operation of undisciplined social forces over which he has no control and which have contributed to, if not actually caused, the patient's maladjustment. To him it is an obvious fact that the patient is "not trying" or "is not using his will power" and is indulging himself at the expense of others. Of course, the physician believes that he himself met and mastered these obstacles by hard work, self-denial and strict adherence to honorable principles. This physician practices the "Buck Up and Pull Yourself Together Philosophy."

Another device which is frequently used by physicians to avoid involvement with the patients is "The Defense by Ridicule" technic or method. The physician may reject his patient by laughter and may even attempt to trick him, by subtle means, to engage in behavior or to make declarations which the physician can find amusing or ridiculous. When a problem, an idea, or a person, can be reduced to absurdity, it no longer needs to be taken seriously, and by this device the physician can avoid involvement in his patient's problems. He may avoid involvement with the individual patient by flight into work, by increasing his case load, by accepting additional responsibilities, or by a compulsive, time-consuming meticulousness in the nonclinical areas of his practice. This makes it impossible for him to spend the time with any one patient necessary to understand him as a person, and the physician may convince himself that he is doing a good medical job. He is busy; he sees many patients; he receives sizable financial rewards—all socially accepted as unchallengeable components of his own personal success. At the same time, however, he is able to avoid personal involvement with his patients, and in my opinion is not practicing the art of medicine.

Another technic frequently used by a physician to avoid personal involvement with patients is the improper delegation of authority. The physician may delegate re-

sponsibility for the patient's diagnosis and care to assistants or ancillary professional workers. This allows him to shift responsibility for mismanagement of a case to others and, in his role as supervisory authority, to accept personal credit for shrewd diagnostic achievements and therapeutic successes. In no instance does he run the risk of personal involvement with the patients' problem. He may shift responsibility to a medical superior, maintaining a constant peripheral position in his contact with patients. Since he lacks final authority in the management of the case, he sees no reason for formulating his own ideas as to the patient's motives or for delving into symptomatology, failing at times to recognize what really alarms him is his involvement in the patient's world or in the patient's own problems.

The physician may also unconsciously confine his effective contacts with those patients who fit into his own neurotic needs. An exact record of the amount of time a physician spends with each individual in a group of patients under his care or charge is often extremely revealing. Granting the widest possible variation in patient responsiveness to treatment, it may still be significant that the physician finds certain of his patients uncooperative, and so he sees less of them and more of those who are improving. Of course, the clearest example of the operation of these influences might be the frequency with which a doctor finds it medically necessary to see the physically attractive, sexually seductive female who appears to be profoundly impressed with his wisdom and his knowledge, and who, at appropriate intervals, tells him that he is the first person that she has ever known in whom she can fully confide and in whom she has complete confidence. It is not too difficult to see these influences operating in others, but as in the case with many things, the victim is usually the last to know.

Frequently important in doctor-patient relationship is a nonprofessional personal involvement with patients. For example, our beliefs in one area of opinion often have unexpected implications in many others, and analysis of the exact nature of the physician's personal involvement with his patient can be brought into better focus through examination of his attitudes and

viewpoints in certain other interpersonal relationships. For example, do we have any basis for believing that a gun shot wound sustained in the last war was less painful to the Japanese soldier than to the American Marine? Is psychic pain less for a man than for a woman? Does a sick bachelor who would never be missed, suffer less than the father of twelve children when they each have pain from carcinoma? When you hire a lawyer, do you want justice done or do you want him to win your case? Do you know as much about your wife as you do about a woman patient with whom you spend all the time you feel necessary to fully understand her? When you get sick, do you want your physician to give the time due you to the patient in the next room, with whom he sympathizes more? All of these attitudes are important for us as physicians to examine when we think about our relationships to our patients.

I realize that perhaps I have been inconsistent in some of the things which have been stated. There is a seeming paradox in discouraging a consistently noncommittal neutrality in the patient-physician relationship while affirming that personal involvement in the patient's world may disrupt the professional relationship and damage the patient. In other words, it seems that on the one hand I am saying that one must have a strong doctor-patient relationship and on the other hand saying that one must not become personally involved with the patient. The physician's goal, of course, is to steer a precisely adjusted course that is in no sense a compromise between the two attitudes, but actually is a new, unique and highly disciplined relationship which is learned with much difficulty. The personal involvement for which the physician strives with his patients may well be quantitatively greater than that of a close relative but, from its inception, is different in quality. His friendliness, although genuine in every respect, is not motivated by a desire to make the patient his friend though he may become one. He does not seek for an emotional grasp of the patient's suffering with the intention of experiencing the same pain within himself. He does not attempt to share in the patient's successes and failures because of the joy that such compan-

ionship offers. He seeks the patient out when the patient is sick and abandons him as a patient when he is well. The risk lies in the physician's permitting his own feelings and those of the patient to solidify into old and more familiar channels—i.e., the fatherly, fraternal, marital or parental patterns. The physician who has a personal, as contrasted to a professional, stake in his patient's welfare loses his objectives and imposes his own code of values on the situation.

A true physician certainly must defer judgement upon his patients. The physician should avoid by word and manner, implied or expressed, disapproval of a patient, of what the patient has done in the past or what he might do in the future. By deferring judgement the physician does not commit himself to an eventual authoritative pronouncement on each issue raised by a patient, and he cannot afford to have the patient assume that his, the patient, sins are being weighed against his virtues in preparation for an ultimate verdict of guilty or not guilty to be dispassionately issued by the physician.

I do not mean to insinuate that psychiatry itself, or psychiatrists themselves, are free from blame or from their own psychological conflicts. I am sure, within my own mind, that many psychiatrists go into this specialty looking for an answer to their own problems and that many of the failures in psychiatric treatment are due to the failures in the personality of the psychotherapist and the psychiatrist himself.

I am sure that you wonder of what value psychotherapy or the understanding of a patient's personal problems are to those of you who practice general medicine. I realize that time is an important aspect in your particular practice, and that you do not have a great deal of time to spend with patients in allowing them to ventilate their feelings or to understand their unconscious motivations. Let me quote from an article published in the *Annals of Internal Medicine*, May 1958 by Harold G. Wolff, and his co-workers. "In the overall population and in a group of patients diagnosed as having psychoneurosis, the result of therapy by internists who placed special emphasis on alleviating stress in the patient's life com-

pared favorably with the reports from other clinics where treatment is carried out by trained psychiatrists. The data indicates that in the hands of a sympathetic, sincere, informed and well-trained physician, approximately two-thirds of the patients will recover or show considerable improvement and one-third will show no improvement. In certain diseases—namely, peptic ulcer, ulcerative colitis and asthma, results of therapy by those who made protracted efforts to alleviate stress in the patient's life, were better than they were in the hands of those who did not. With the peptic ulcer patients, the results were better than they were in the hands of those using psychoanalytic therapy. In addition, with these patients frequently less time was required with the patient than when the physician concerned himself almost entirely with diet and medication. In the initial months of this type of treatment, more time is spent with the patient than the more usual therapy; however, over a period of a year less time is spent. It is possible that the one-third of the patients showing no improvement represent the group of patients for whom there is no effective therapy at the present time. The findings show that internist, psychiatrist and psychoanalyst are all effective to the same extent in the treatment of psychoneurosis."

We must remember that there are many patients with obsessive or phobic symptoms, clearly of emotional content who unconsciously feel that they may present themselves for treatment only if it is physically expressed. They are not only refractory or complaining patients, but also overtly cooperative patients, ones who get well fast but sick frequently, the ones who usually find the office or hospital experience a substitute for home or family setting, or perhaps find the intimacy of the consulting room as titillating as the boudoir should be, but is not.

I cannot impress too strongly upon you the importance of the non-judgemental attitude of the physician. In all of its context, of course, it can never be completely achieved. The physician's role cannot be equated with that of the Icon nor can the tasks of diagnosis and therapy be performed by a graven image. The successful physi-

cian respects the patient's individuality. The physician's friendly sentiments toward the patient, his refusal to consider him either as an object or as an inanimate source of clinical symptomatology, together with his own sober recognition of the profound complexity of the human personality, represents the basis upon which respect for the patient's individuality rests. The mature person consistently strives to recognize, understand and discount his own prejudices in full awareness of the universal human tendency to seek out what is familiar and reject what is different. I believe one reason that many physicians reject psychiatry is because of their unfamiliarity with it. The true physician concedes the patient's right to his own opinions, recognizes his own behavior as an unavoidable result of the dynamic interplay between his particular personality and his uniquely experienced environment, and he places his knowledge exclusively in the service of the patient's best interests within the framework of civil law. He conceives of his mission as the promotion of positive health through the realization of the patient's potentiality, not simply the alleviation of illness. He puts into concrete practice the Christian, as opposed to the materialistic insistence on the unique value of the individual. The physician who respects studious inquiry, to whom the endless diversity

of life is a challenge rather than a threat, who does not believe in the faceless humanity of materialism, and who is able to understand that his own desires and expectations when sick are identical with those of his patient except for the irrelevant nature of their verbalizations—such a physician will find little difficulty in respecting the patient's individualities and will be markedly successful in relieving their illness.

May I close with a quotation from the Catalog of our Medical School in Winston-Salem concerning the objectives of the medical school. "The faculty encourages and assists the student to, (A) understand himself and therefore to understand better his patients and their problems; (B) to establish habits of continuing self-education; and (C) to become thorough and accurate in perception recording and interpretation. He is taught the usefulness and limitation of certain basic diagnostic and therapeutic skills. The student learns through personal experience with patients that the physician can cure sometimes, relieve often, and prevent frequently but comfort always."

*I should like to credit to Dr. Paul Haun, presently with the New Jersey State Hospital System, with these ideas and thoughts concerning some of the philosophy here expressed. He was one of my former colleagues at Bowman Gray School of Medicine.

Left Ventricular and Systemic Arterial Catheterization: A Simple Percutaneous Method Using a Spring Guide. Charles T. Dotter. Am. J. Roentgenol. 83:969, 1960.

This article is probably best classified as a preliminary report, as few statistics are furnished. A modified Seldinger technic is described employing percutaneous femoral artery puncture with insertion of a special flexible coil spring guide and a polyethylene catheter. As the author states, the coil spring guide, a modified "plumber's snake," is the essential ingredient for success in passage through the aortic valve. Exhaustive descriptions of the technics involved, and of the guide itself and how it can be obtained, are furnished.

The author has employed relatively simple angiographic equipment here with success; i.e., a single plane two exposures per second Fairchild camera. The technic has been used for thoracic and abdominal aortography, left ventriculography, and left ventricular catheterization, singly or in combination, to a total of 110 cases. Unless severe aortic stenosis is present, rarely more than a few seconds are required to achieve passage across the aortic valve when desired. Most even severely stenotic aortic valves can be traversed in a few minutes. A not inconsiderable morbidity is detailed. (Abstracted for the Middle Tennessee Heart Association by Joseph H. Allen, Jr., M.D., Nashville.)

Most emboli arise in the heart. The clinical picture is so characteristic it is not likely to be missed. The removal of the embolus is the unquestioned mode of treatment and must be undertaken promptly.

Peripheral Arterial Embolism*

WILLIAM S. STONEY, M.D.,† Nashville, Tenn.

Embolectomy for peripheral arterial embolism in recent years has become a well established and useful surgical procedure. The ultimate prognosis of the patient with an arterial embolus is usually determined by the primary disease process rather than the arterial embolus itself. The present high mortality rate has shown little improvement when compared to the comprehensive reports of Key⁸ in 1923 and Pearse¹⁶ in 1933. This attests to the gravity of myocardial infarction and atrial fibrillation which provide the major source of peripheral emboli.

Peripheral arterial embolectomy was first attempted by Ssabanejew²⁰ in 1895. Georges Labey¹⁰ performed the first successful arterial embolectomy in 1911, and following his report the procedure became widely accepted in the Scandanavian countries. Key,⁸ Nystrom,¹⁵ and Crafoord³ developed the technics of embolectomy, retrograde embolectomy, retrograde flushing for removal of a propagated clot, and introduced the use of preoperative and postoperative anticoagulants. It was not until after World War II that the value of the procedure became fully appreciated in the United States and England.

It is the purpose of this study to review the cases of peripheral arterial embolism treated by embolectomy and to emphasize the factors leading to gangrene of the extremity and/or death of the patient.

Clinical Material

Fifty patients with peripheral arterial embolism were treated by embolectomy at Vanderbilt University Hospital and Thayer

Veteran's Administration Hospital during the period from 1948 to 1959. Although 38% of the patients had multiple emboli as determined by history, clinical course, or autopsy, only one patient had more than one embolus removed giving a total of fifty-one arterial embolectomies. The age distribution varied from 27 years to 84 years with the peak incidence between the ages of 50 and 80, as shown in figure 1.

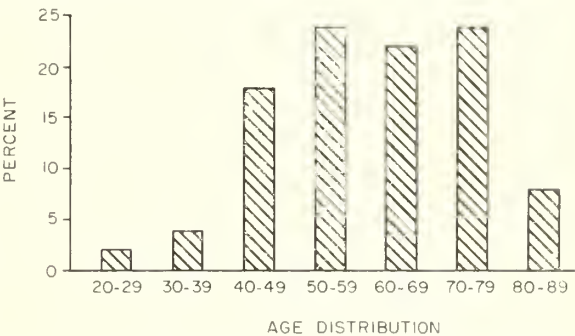


FIG. 1. Age distribution of 50 patients with peripheral arterial embolism.

The source of the embolus cannot always be accurately determined. In many instances the source was verified either by autopsy or operative cardiectomy. In 4 patients paradoxical embolism occurred with the embolus reaching the arterial system through an atrial septal defect. Myocardial

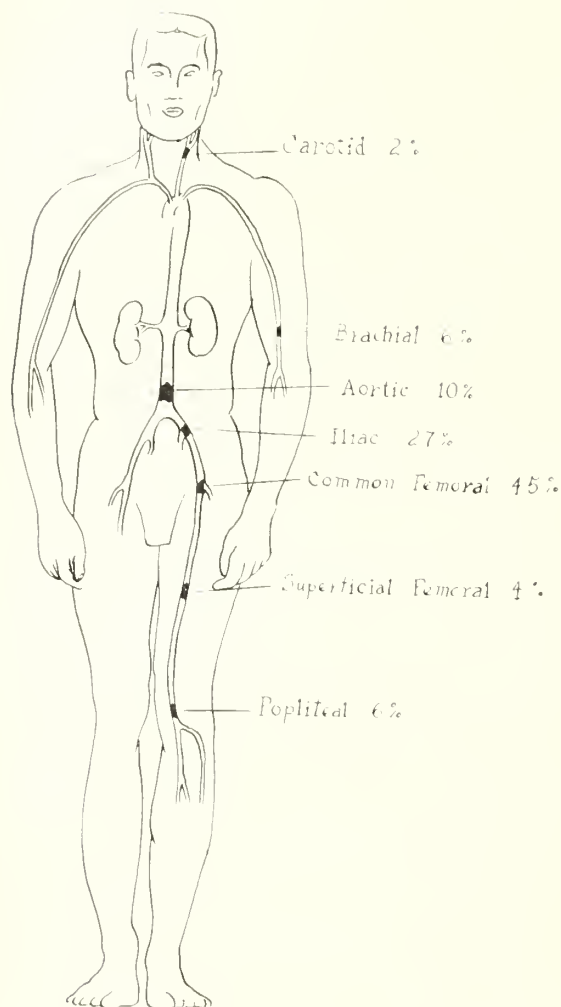
Table I
SOURCE OF THE EMBOLUS
No. of Patients Percent

Source	No. of Patients	Percent
Heart		
Myocardial infarct	14	28
Atrial fibrillation (RHD)	11	22
Atrial fibrillation (ASHD)	10	20
Pulmonary vein	1	2
Atrial septal defect	4	8
Mycotic endocarditis (Histoplasmosis)	1	2
Great Vessels		
Ulcerated atheroma	3	6
Trauma (Operative)	2	4
Prosthetic graft	1	2
Unknown	3	6
TOTAL:	50	100

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infarction and atrial fibrillation with an associated mural thrombus of the left side of the heart provided the source for 70% of the cases studied. The source of the emboli are recorded in table 1, and the sites of occlusion are listed in figure 2.



Sites of Occlusion

FIG. 2. Sites of occlusion.

The operative procedure was performed using local anesthesia in 28%, spinal anesthesia in 35%, and general anesthesia in 37% of the patients. The artery was exposed at the suspected site and a longitudinal or transverse arteriotomy incision was used with proximal and distal control of the blood flow. The embolus and propagated blood clot were then removed, and if proximal and distal blood flow was established the arteriotomy was closed. If adequate proximal flow was not obtained, a retro-

grade embolectomy with suction or stone forceps was attempted.¹¹ If adequate retrograde blood flow did not occur the propagated blood clot was removed by suction or by retrograde flushing utilizing a distal vessel (Fig. 3).¹⁸ The "milking technique"



FIG. 3. Technic of retrograde flushing-saline is injected into the posterior tibial artery through a small catheter.

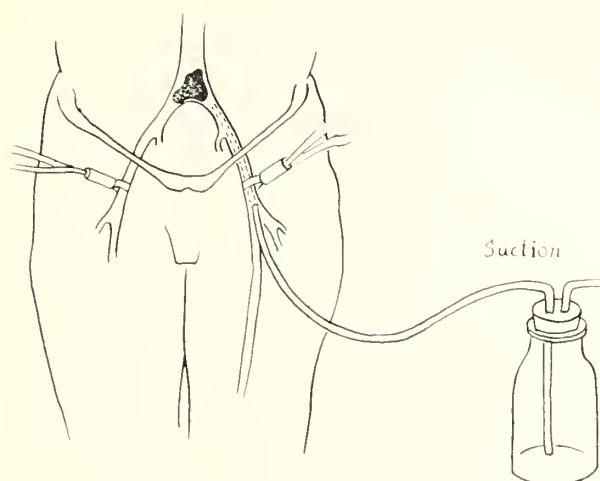
using an Esmarch bandage as described by Keeley⁷ was not applied in this group of patients (Fig. 4). Retrograde removal of a



FIG. 4. Technic of retrograde milking using an Esmarch bandage.

saddle embolus via the femoral arteries was employed in two instances (Fig. 5). The presence of extensive propagating clot distal to the embolus was the most frequently encountered obstacle to re-establishing adequate circulation.

Sympathetic block was used in 18% of cases prior to embolectomy and in 14% postoperatively. The results of the sympathetic blocks were usually discouraging. Lumbar sympathectomy was performed in 28% of the patients at the time of embolec-



Retrograde Embolectomy

FIG. 5. Method of retrograde embolectomy. The opposite femoral artery is occluded to prevent further embolization by dislodged fragments.

tomy or shortly thereafter with beneficial results.

The results of embolectomy are listed in table 2. Thirty-seven percent of the patients expired within thirty days after the embolic episode. It is interesting to note that in 47% of those patients the extremities were viable at the time of death. Of the survivors 62% had a good extremity following embolectomy, 16% had a viable extremity with claudication or other symptoms of ischemia, and 22% required amputation. The highest success rate occurred in emboli of the upper extremity, and the highest failure rate occurred in aortic or iliac occlusions. This series is too small to correlate the success of operation with the time interval following occlusion of the artery. It is generally accepted that early operation yields better results. In this series, however, five late

embolectomies (all beyond 48 hours) were successful.

Of the 50 patients, 19 died within 30 days of the embolic episode. The causes of death are listed in table 3. The only operative

Table 3
CAUSE OF DEATH

Origin	No. of Patients
Cardiac	
Myocardial infarct	3
Congestive failure (ASHD)	1
SBE (Ruptured aortic cusp)	1
Patent Foramen Ovale	1
Total	6 (31.5%)
Thromboembolic	
Pulmonary embolus	3
Multiple emboli	1
Thrombosis of aorta	1
CVA (embolus)	2
Total	7 (37%)
Miscellaneous	
Peritonitis	1
Operative (mitral commissurotomy)	1
Uremia	2
Unknown	2
Total	6 (31.5%)
Cumulative Total	19 (100%)

death occurred during mitral commissurotomy several days after a successful embolectomy. Thirty-seven percent of the deaths were due to thrombo-embolic disease, 31.5%, cardiac disease, and 31.5%, miscellaneous causes.

Twenty-six patients received heparin postoperatively, 6 received dicumarol postoperatively, and 18 received no anticoagulants during the postoperative period. Thirty-five percent of those receiving heparin required amputation while 42% receiving no anticoagulants required amputation. This difference was not thought to be significant. Two patients received heparin preoperatively with successful recovery.

Discussion

Peripheral arterial embolism is a grave

Table 2
RESULTS OF EMBOLECTOMY

Time Interval (Hours) Onset to Embolectomy	Number of Patients	Good Results	Claudication	Amputation	Deaths Within 30 Days After Embolectomy
0- 4	12	7	0	1	4
5- 8	17	6	0	3	8
9-11	4	1	1	0	2
12-24	6	1	1	1	3
24-48	4	3	0	0	1
48-96	2	2	0	0	0
More than 96	6	0	3	2	1
TOTAL:	51	20	5	7	19
PERCENT:	100	39	10	14	37
	Extremity Viable	Extremity Viable with Claudication	Gangrene or Amputation	Early Postoperative Death	
Survivors	63%	16%	21%		
Non-survivors	47%		42%	11%	

circulatory accident occurring in the course of cardiovascular disease. The symptoms and physical signs of arterial embolism are remarkably constant, characterized by the awareness of the patient of a sudden change in the circulation of the extremity. Pain, pallor, coldness, anesthesia, and weakness occur. Sharply demarcated temperature changes of the skin with mottled cyanosis, absent pulses, and occasionally a palpable embolus are observed. The exact site of the embolus can frequently be determined by palpation of the artery. The occlusion always occurs proximal to the level of demarcation. Transmitted pulsation through an embolus and transmitted venous pulsation may be misleading. Preoperative arteriography is occasionally indicated.

The size of the embolic fragment determines its final location. Occlusion occurs when the fragment reaches a vessel too narrow to permit its passage, usually at the site of bifurcation of an artery. In this series, as in others reported, the most frequent site of embolism was the common femoral artery.¹² Multiple small visceral emboli may occur with minimal symptoms. Mural thrombosis of the left side of the heart secondary to myocardial infarction or rheumatic and arteriosclerotic atrial fibrillation provides the source of 70% of the emboli. A surprisingly high incidence (8%) of paradoxical embolism through an intra-atrial septal defect occurred in this series.

Immediate embolectomy is the exemplary treatment but in individual cases unfavorable circumstances may occasionally indicate a nonoperative approach.

It is important to emphasize that the majority of peripheral arterial emboli can be removed surgically by simple operative procedures under local anesthesia, even in gravely ill patients. The time interval, the site of embolus, and the prognosis of the severely ill patient must be considered in each instance.

The chief obstacle to restoring circulation is the presence of an extensive propagating clot in the distal vessels. The early use of heparin when the diagnosis is made or first suspected may postpone propagation of the clot. Heparin may be given either in the home or as soon as the patient reaches the hospital after baseline clotting time has

been determined. An altered clotting time would not present an insuperable problem prior to operation as the clotting time can be restored to a normal value by the administration of polybrene or protamine.

When a propagating clot is present, diligent effort must be made to restore adequate circulation. When conventional methods fail, retrograde flushing¹ or retrograde milking⁷ by the use of an Esmarch bandage should be employed.

The arterial embolus plays a supporting or secondary role in the overall mortality rate. The primary disease determines the ultimate prognosis of the patient. Only infrequently can the source of the embolus be eliminated by mitral commissurotomy or other operative method.

Fresh thromboembolic episodes accounted for 37% of the deaths of this series. Long term anticoagulant therapy may increase the survival time of these patients.

Summary

1. Fifty patients who sustained a peripheral arterial embolus and were treated by embolectomy were studied. Fifty-one embolectomies were performed.

2. Death occurred within thirty days in 37% of the patients; at the time of death 47% of the patients had viable extremities. Of the survivors, 62% had a good result, 16% had a viable extremity with claudication or other symptoms of ischemia and 22% had major amputation.

3. Improvement in results may be obtained by early embolectomy, heparinization as soon as the diagnosis is suspected, and operative technics to remove all propagating clot.

4. Employment of long term anticoagulant therapy may improve the overall mortality.

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Roentgenographic Demonstration of the Coronary Arteries. Gunnar Jonsson and Lars Hellstrom, *Acta radiol.* 53:273, 1960.

Coronary arteriography can now be performed readily and reliably and may be considered a standardized technic. The authors review all of the 63 thoracic aortograms performed at the Södersjukhuset in Stockholm in the last five years. These 63 cases were all being examined for other diseases—37 patients had coarctation of the aorta, and most of the rest had aortic valve disease. Hence, even easily controlled conditions were often not optimal for coronary visualization. In spite of this, the following figures were obtained:

Group I—6 cases. The coronaries were visible only a few centimeters peripheral to their origins in the aorta.

Group II—10 cases. The proximal half of the arteries can be seen.

Group III—47 cases. The arteries were clearly demonstrated out to their most distal portions. Both the arteries were always filled. In all cases

in which a high concentration of contrast medium was attained in the aortic valve, the coronary arteries were distinctly delineated. Use of side hole rather than end hole catheters also achieved considerable improvement.

A few cases are discussed in which diagnosis of coronary artery disease was the primary objective. These patients are examined supine and slightly oblique with the left side elevated for optimal visualization of the origin of the vessels. Intrathoracic pressure was raised by 20 to 30 mm. of mercury in order to reduce minute volume of the heart during injection. This has been satisfactory in all cases, including ones with pathological changes in the coronary artery walls. More complicated and hazardous modifications of the method, such as occlusion of the ascending aorta by balloon or pharmacologically introduced bradycardia, are unnecessary. (Abstracted for the Middle Tennessee Heart Association by Joseph H. Allen, Jr., M.D., Nashville.)

In a decision upon the use of prophylactic treatment against rheumatic fever, the diagnosis of the disease should be on firm grounds. This valuable study of the rheumatic fever problem in the non-university hospitals of Tennessee is enlightening and should stimulate the family physician to accurate study and diagnosis.

Rheumatic Fever in Seven Community Hospitals in Tennessee*

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Studies of rheumatic fever in hospital populations have invariably been done in large referral and teaching institutions, the data recorded being a reflection of the work of the specialists staffing these institutions. The purpose of the present study is to examine how rheumatic fever is interpreted by physicians practicing in more typical community hospitals in Tennessee, and how great a problem it represents. Incidental to this purpose was the collection of data concerning the frequency of certain acute manifestations of rheumatic fever which may be compared to similar studies done elsewhere.

Methods

Seven hospitals, representing the major geographic divisions of Tennessee, were selected for a survey of patient records. With one exception (Hospital D), most of the population of each hospital comes from the immediate area in which the hospital is located. Hospital D** happens to be the only facility in a wide area, and is, therefore,

somewhat more of a referral center than others. These particular institutions were chosen because they are sufficiently large to have a significant number of rheumatic patients and to have a well-ordered record keeping system, employing the Standard Nomenclature of Diseases and Operations. They are staffed largely by general practitioners, though all major specialties are represented.

A total of 319 records was examined, representing all patients fifteen years old and under, who were discharged from the inpatient service with the diagnosis of rheumatic fever, rheumatic heart disease, or chorea, within the most recent five-year period for which the hospital records were complete. The age limitation was arbitrarily chosen so the data would be more comparable to similar studies done in teaching institutions where the pediatric age group is also limited to fifteen or sixteen. Since the hospitals in the present study record only those up to age fourteen as pediatric cases, the records of those fourteen and fifteen years old are eliminated where rheumatic fever cases are calculated as a percentage of total pediatric discharges, (Tables 2 and 3).

Those patients discharged with "Questionable" as part of the recorded diagnosis were separated from those in which no doubt of the diagnosis was indicated. Initial attacks of acute rheumatic fever were separated from the other categories and were examined with particular attention to the acute manifestations, and the justification for the diagnosis in the light of Jones Modified Criteria.† They were then classified as "posi-

Table 1

HOSPITALS INCLUDED IN STUDY WITH NUMBER OF BEDS AND GEOGRAPHIC LOCATION, TENNESSEE, 1960

Hospital	Number of Beds	Geographic Location
A	381	West
B	196	West
C	333	Middle
D	586	Lower East
E	350	East
F	226	Upper East
G	245	Upper East

*From the Tennessee Department of Public Health, Nashville, Tenn.

**Hospital D consists actually of a children's hospital and an adult hospital, physically separate but administratively one unit, and thus is counted as a single hospital.

Table 2

MEDICAL PEDIATRIC DISCHARGES WITH NUMBER AND PERCENTAGE
DISCHARGED AS RHEUMATIC FEVER AND NUMBER AND PERCENTAGE
MEETING JONES CRITERIA BY HOSPITAL, TENNESSEE, 1960

Hospital	Medical Pediatric Discharges**	Discharged As Rheumatic Fever, Rheumatic Heart Disease or Chorea			
		Total Pediatric Medical Discharges**	Per Cent	Pediatric Medical Discharges Meeting Jones Criteria	Per Cent
		Number		Number	
Total	25,145	348	1.4	215	0.9
A	*	*	*	*	*
B	2,021	43	2.12	24	1.2
C	2,631	43	1.63	29	1.1
D	9,170	78	0.85	44	0.5
E	4,170	53	1.27	33	0.8
F	4,880	65	1.33	48	1.0
G	2,273	66	2.9	37	1.6

*Hospital A not included because no estimate of breakdown of medical and surgical cases available.

**Based on record librarians' estimate except Hospital G.

Table 3

RHEUMATIC FEVER CASE LOAD IN VARIOUS
HOSPITALS

Location	Percent
Tennessee (Present Study)	0.9 (Pediatric Discharges)
Vanderbilt University†	2.8 (Pediatric Admissions)
Northern Louisiana ^a	0.59 (Medical & Pediatric Admissions)
University of California ¹²	3.7 (Pediatric Admissions)
New Haven ¹⁸	1.8 (Pediatric Admissions)
Barnes ¹⁴	0.4 (Pediatric Admissions)
Cincinnati ¹⁵	0.52 (Pediatric Admissions)
Philadelphia ¹¹	0.68 (Pediatric Admissions)
Boston ¹⁴	1.4 (Pediatric Admissions)

tive" or "negative" in fulfilling Jones Criteria. This classification was done with considerable leniency in that even a weak combination of signs such as polyarthritides, fever and elevated sedimentation rate, was considered positive even without other illness having been positively ruled out.

The total discharges of the pediatric age group according to the hospitals' own age

†Jones Criteria (modified) for guidance in the diagnosis of rheumatic fever.

Major diagnostic criteria: carditis, polyarthritides, chorea, subcutaneous nodules, erythema marginatum.

Minor diagnostic criteria: fever, arthralgia, prolonged P-R interval in the electrocardiogram, increased erythrocyte sedimentation rate, presence of C-reactive protein, or leukocytosis, evidence of preceding Beta hemolytic streptococcal infection, previous history of rheumatic fever or the presence of inactive rheumatic heart disease.

The presence of two major criteria or one major and two minor criteria indicates a high probability of the presence of rheumatic fever.

definition were then compared to those discharged with a diagnosis of rheumatic fever, rheumatic heart disease, or chorea. Since the hospitals (except Hospital G) do not keep the records of medical and surgical cases of this age group separated, only the record librarians' estimates of the proportion of medical pediatric discharges are available. This imposes an unavoidable limitation on the comparative data in tables 2 and 3.

Results

Use of Jones Criteria. Table 4 shows the number of patients discharged as having

Table 4

NUMBER OF CASES DIAGNOSED AS ACUTE RHEUMATIC FEVER, AND PERCENTAGE MEETING JONES CRITERIA AND NUMBER OF QUESTIONABLE DIAGNOSIS, BY HOSPITAL, TENNESSEE, 1960

Hospital	Discharged as First Attack of Acute Rheumatic Fever	Discharged as First Attack & Fulfilling Jones Criteria		Diagnosis Questioned by Discharging Physician
		Number	Percent	
Total	227	142	62.0	47
A	15	4	26.0	4
B	24	18	75.0	11
C	32	20	62.5	1
D	44	23	52.2	8
E	29	17	58.6	2
F	45	38	84.0	12
G	38	22	57.0	9

had an initial attack of acute rheumatic fever, divided according to whether or not they fulfill Jones Criteria. Those cases in which the diagnosis is questioned by the discharging physician are listed separately and not included in the calculations.

Acute manifestations. Table 5 is a tabulation of the "major" and "minor" criteria and the sex distribution, according to Jones Criteria "positive" and "negative." Males have a predominance in this small series,

Table 5

RELATIVE FREQUENCY OF "MAJOR" AND "MINOR" MANIFESTATIONS OF ACUTE RHEUMATIC FEVER ACCORDING TO FULFILLMENT OF JONES CRITERIA, SEVEN TENNESSEE HOSPITALS, 1960

Sex and Manifestation	Cases Meeting Jones Criteria		Cases Not Meeting Jones Criteria	
	Number	Percent	Number	Percent
Total Cases	142	100.0	132	100.0
Sex				
Male	80	56.3	94	71.0
Female	62	43.7	82	29.0
"Major" Manifestations				
Migratory polyarthritides	116	81.6	43	32.5
Chorea	21	14.7	20	15.1
Subcutaneous Nodules	3	2.1	0	.0
Erythema marginatum	6	4.2	0	.0
Carditis	68	47.8	5	3.7
"Minor" Manifestations				
Fever	129	90.8	98	74.2
Arthralgia	121	85.2	59	44.6
Increased P-R interval on EKG	66	46.4	28	21.2
(No EKG done)	(24)	(16.9)	(97)	(73.4)
ASO titer greater than 250	91	64.0	31	23.4
(No ASO titer done)	(43)	(30.2)	(108)	(81.8)
One or More of the Following:				
Erythrocyte sedimentation rate (over 20)	125	88.0	125	94.6
C-Reactive protein (2+ or more)				
White blood cell count (over 12,000)				
Antecedent "sore throat"	95	66.9	87	65.9
(Not counted as a "Minor")				

particularly in the "negative for Jones Criteria" group. The major manifestations as seen in the Jones Criteria "positive" group are compared with other series in table 6. It should be pointed out that these 142 patients represent only initial attacks, while the compared series include recurrences as well.

There was no peak month of onset of acute rheumatic fever. All that can be stated from this series is that there appears to be a substantially lower attack rate in July, August, and September.

The record librarians' approximation of the number of medical pediatric discharges in the five years of the study is listed in table 2. The percentages of all discharges with a diagnosis of rheumatic fever, rheumatic heart disease, or chorea, and those meeting Jones Criteria, are calculated on the basis of medical discharges only, again in an effort to make the data more subject

to comparison with other studies of a similar nature. Discharge rather than admission figures are used, since this is how records are kept in these hospitals.

There were 78 readmissions for the same diagnosis among the Jones Criteria "positive" patients, or a readmission rate of 54.9 per cent. This contrasts to 19 readmissions for 132 patients of the Jones Criteria "negative" group, a readmission rate of 14.4 per cent. This difference is highly significant.

Table 3 compares figures derived from this study with others of a similar nature in other parts of the United States.

Discussion

Standardization of diagnostic criteria. The protean and often elusive nature of acute rheumatic fever makes it a diagnostic challenge, especially to the average general practitioner who may see only a few cases in a year and therefore does not have the

Table 6

PERCENTAGE FREQUENCY OF APPEARANCE OF MAJOR MANIFESTATIONS OF ACUTE RHEUMATIC FEVER IN VARIOUS STUDIES

Manifestation	Tennessee (Present Study)	Louisiana (Lieber)	Vanderbilt Uni- versity (Koenig)	Washing- ton State (Bruce)	Virginia (McCue)	Massa- chusetts ¹⁰ (Bland & Jones)	Phila- delphia ¹¹ (Ash)
Carditis	47.8	56.2	83.0	38.0	58.6	65.3	59.2
Polyarthritides	81.6	63.6	89.0	45.7	49.3	41.0	58.1
Chorea	14.7	9.3	22.0	3.5	15.1	51.8	19.6
Subcutaneous nodules	2.1	3.1	9.0	6.3	2.2	8.8	—
Erythema marginatum	4.2	0.6	6.0	9.5	4.0	7.1	—

clinical sensitivity to this disease that he has to others he sees more often. A precise diagnosis is always desirable of course, but the presently recommended principle of secondary prevention by continuous prophylaxis makes a more certain diagnosis a necessity.² There is no need here to elaborate on the tragedy of a child who has a recurrence of rheumatic fever with consequent aggravation of a valvular lesion, when it might have been prevented had he been on prophylaxis. Almost as unfortunate is the individual forever labeled as "rheumatic" and managed and restricted accordingly, when he may have had little more than a severe case of influenza.

In the administration of any program providing prophylactic drugs and promoting their use, such as the Rheumatic Fever Program of the Tennessee Department of Public Health, great emphasis should be placed on careful diagnosis. There is no way, diplomatically or practically, to challenge the diagnosis of a physician requesting drugs for a patient without compromising the cardinal philosophy of this program—that it be completely physician-patient centered. As the prophylaxis program is presented to practicing physicians for their approval, an effort is made to remind them of the diagnostic criteria developed by T. D. Jones and now recommended by the American Heart Association as the "Jones Criteria (Modified) for Guidance in the Diagnosis of Rheumatic Fever."¹ The rigid use of this method will still lead to occasional misdiagnosis, but when applied with good clinical judgment it is unquestionably the most reliable schema presently available. That there is a lack of such standardization of criteria is clearly indicated in the present study. Using the most liberal application of the Jones Criteria, approximately 40% of patients discharged as having had acute rheumatic fever should not have been so diagnosed. This is not an unusual finding. In a similar survey in a Louisiana hospital, Lieber and Holonbek³ refer to 343 cases of possible or proven rheumatic fever, of which 162 or 47%, fulfilled the Criteria. He did not separate the "possible" from the "proven" since this was not the purpose of his paper, so it is not strictly comparable to this study. Nevertheless, there remains the implication

that there is considerable overdiagnosis in hospitalized patients.

There are many sources of error in all of our figures. Hospital records do not always accurately reflect either the clinical picture or the thinking of the physician. There may be many questions in the doctor's own mind, but he just did not happen to record a "Y" on the front sheet, so his case is included in our Jones Criteria "negative" group. Many patients are treated at home, and it may be that many are hospitalized only because they present problems in differential diagnosis. This would tend to bias the figures toward those with a borderline clinical picture.

There are many subjective differences in evaluation of clinical signs and symptoms, and in the recording of them. It was not unusual to see a murmur precisely described as to pitch, location, radiation, and timing. There were doubtless justified diagnosis, therefore, which were not so counted in this study because of details lacking in a chart. Admitting these sources of error, there is still no denying the frequent overdiagnosis of rheumatic fever in hospitalized patients.

Where the combination of manifestations included arthralgia or myalgia, fever, tachycardia, and an increased sedimentation rate, all nonspecific, a positive diagnosis was often made without excluding the many other possible causes of the same clinical picture, and in many cases, a fever of unknown origin was called rheumatic fever without a single rheumatic manifestation. Clearly, the use of continuous prophylaxis must be avoided in such cases until there is more positive evidence of rheumatic disease.

Acute manifestations. Although it has been stated that rheumatic fever is less florid in the southeastern section of the United States,⁴ the present study indicates that the relative frequency of major manifestations seen here compares closely with that seen in other parts of the country, despite the inevitable variation in the definitions used in the different studies, (Tables 5 and 6). The definitions of these manifestations as outlined by Jones were adhered to as rigidly as possible.

This study shows a somewhat greater frequency of arthritis than other studies. In

attempting to explain this, it was seen that in some cases, rather than a description of a joint or joints on the physical examination, a statement such as "arthritis in knee joint" was made. In such cases it was assumed that arthritis was in fact present, and that it was not merely arthralgia. The distinct difference in meaning between these two terms may not be observed in every case. Similarly, it was not always possible to be certain whether there was migration of arthritis. As suggested previously, polyarthritis, increased sedimentation rate, and fever is a weak combination, though "qualifying" under Jones Criteria. Many had just this combination, and may not represent rheumatic fever even though they are recorded as Jones Criteria "positive." These sources of error may partially account for the large number of cases recorded as having polyarthritis.

There were many with chorea in the Jones Criteria "negative" group; cases with this as an isolated finding. Some of these may have had acute manifestations several weeks or months previously³ but there was not sufficient evidence to classify them as rheumatic fever. The chorea percentage may therefore be a little low. There is a greater variation in the frequency of chorea than in any other manifestation in the compared series. Some of this may be due to indefinable geographic differences, but varying and inconsistent individual interpretations of the chorea syndrome must also be considered as part of the explanation. There is also a wide range of criteria used in deciding whether or not a patient should be hospitalized. The medical "fashions" of different areas vary greatly in this respect. This would obviously bias figures based on hospital admissions.

Since this survey was done only on inpatients with no follow-up, and with most hospitalizations being of less than two-weeks duration, a significant number of subcutaneous nodules would not be expected since this lesion rarely appears during the first week of the acute attack.⁴ Careful scrutiny is required to find nodules and they may be easily overlooked. The same may be said of some cases of erythema marginatum, especially in a Negro child. Both

these figures are probably lower than the actual incidence.

The frequency of carditis is quite comparable to the other studies if the one high figure from Koenig's series is omitted.⁷ In this study, 83% of the patients . . . "had some evidence of rheumatic carditis on admission (cardiac overactivity, tachycardia, cardiac enlargement, transient murmurs and electrocardiographic changes)." "Some evidence of" cannot be equated with "carditis" and Koenig was certainly not attempting to do so, but for purposes of comparison with the present study, this limitation must be recognized.

The incidence of carditis may be low in the present study, since many cases were probably not counted because of incomplete or uncertain data in the chart. "Systolic murmur and prolonged P-R interval" was not considered adequate to qualify the case as having "carditis." If the murmur was described sufficiently to indicate its organicity, it may then have been included. In general, the description of murmurs as outlined in the Jones Criteria statement was used, as were the other criteria for diagnosing carditis, viz., increasing cardiac enlargement, pericarditis, and congestive failure.¹

In comparing the frequency of acute manifestations of the Jones Criteria "positive" and the Jones Criteria "negative" groups, there is much less discrepancy among the minor manifestations, as would be expected. The most interesting comparative figures, however, are in the columns, "no EKG done" and "no ASO titer done." In the Jones Criteria "positive" group 16.9% did not have an EKG compared to 73.4% of the Jones Criteria "negative" group. Of the Jones Criteria "positive" group 30.2% did not have an ASO titer, compared to 81.8% of the Jones Criteria "negative" group. This is not to imply that these two procedures are in themselves diagnostic of rheumatic fever, but only that the failure to use them may indicate that a precise diagnostic effort was not made.

Table 5 has also compared the sex distribution of these two groups. There is a slight male predominance in the Jones Criteria "positive" group, but an overwhelming one in the Jones Criteria "negative" group.

Proportion of hospital discharges. In this

series, rheumatic fever accounts for a proportion of the hospital case load which is not greatly different from that shown by similar studies done elsewhere, (Tables 2 and 3). It should be re-emphasized that these are typical community hospitals, representing a closer approximation to a hospital "sample" than studies done in referral and teaching centers. It should, also, be pointed out that in a referral hospital, the cases would tend to be the more difficult ones which the referring physician felt needed the specialized facilities of the larger center. The center will consequently tend to have a disproportionately large number of difficult diagnostic and therapeutic problems.

Summary and Conclusions

Records of all patients in the pediatric age group discharged with a diagnosis of rheumatic fever, rheumatic heart disease, or chorea were examined in seven hospitals, representing the major geographical divisions of Tennessee.

Three hundred and nineteen records were studied. In 47, the diagnosis was questioned by the discharging physician. Of the remaining 227, 142 or 62% were diagnosed using Jones Criteria. This suggests that diagnosis should be more precise if optimal benefit is to be achieved from the use of continuous prophylaxis.

Comparisons with other studies indicate that the rheumatic fever problem in Tennessee is much the same as it is elsewhere in the United States.

An effort has been made to present data which is reasonably representative of the experience of the private practicing physicians in Tennessee.

Acknowledgement

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Holston Valley Community Hospital, Kingsport; St. Mary's Hospital, Knoxville; Baroness Erlanger Hospital, Chattanooga; T. C. Thompson Children's Hospital, Chattanooga; Jackson Memorial Hospital, Jackson, Mid-State Baptist Hospital, Nashville, and Methodist Hospital, Memphis.

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CASE REPORT

Metastatic Carcinoma of Eyelid*

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Metastatic tumors to the eye and its adnexa are usually seen either in the uveal tract or in the orbit. A search of the literature and of standard textbooks on the subject does not reveal any mention of tumor metastases in the eyelids; hence, this case report is presented.

This patient is a 54 year old white, married woman who first presented herself for examination on September 1, 1959. Her chief complaint was that of a growth in her left lower eyelid, which had first appeared 10 months previously. The lesion had been removed soon after its appearance but had promptly recurred. The past medical history revealed that she had had skin nodules, which had been biopsied and a diagnosis of "mucinous carcinoma, questionably from thyroid" had been made.

Physical examination showed a firm, indurated mass in the upper and lower eyelids of the left eye at the inner canthus. The lesions were elevated and erythematous, but showed no increase in local temperature. They were firmly attached to the underlying tissues and were nontender. There was no regional lymphadenopathy; the patient seemed to be in good general health.

After consultation with several other ophthalmologists and a dermatologist, no definite diagnosis could be agreed upon, hence, biopsy was advised. The biopsy report indicated "nonspecific chronic inflammatory changes." The patient was advised of this fact and requested to return in one month for subsequent observation. At the time of her return visit, the lid lesions had become noticeably larger, and there was impairment in closure of the eyelids. The lesions did not seem to be amenable to surgical removal, and she was referred to a medical center for further studies.

She was subsequently examined by a general surgeon, who detected nodules in each breast, and

a clinical diagnosis of adenocarcinoma of the breast with metastasis to the skin and eyelids was made. Otolaryngologic examination did not show any primary tumor focus in the upper respiratory passages. Chest x-ray study was negative. Biopsy of a cervical polyp showed no evidence of a malignancy.

Exploratory laparotomy and oophorectomy were advised and carried out on November 24, 1959, since removal of the ovaries being helpful in some cases of metastatic carcinoma of the breast. A primary tumor site was not found in the abdomen. The surgical specimen from bilateral salpingo-oophorectomy showed microscopic evidence of metastatic adenocarcinoma. Pathologic studies of sections of skin, eyelids, tubes and ovaries was thought to be consistent with the diagnosis of adenocarcinoma of the breast, with metastases to the skin, eyelids, tubes and ovaries. Biopsy of the breast nodules was not done. Postoperatively, intravenous and oral Cytoxan (nitrogen mustard compound) was given. The lid lesions have continued to progress in spite of these forms of treatment.

Comment. Welch and Duke¹ analyzed 617-lidbiopsies which were studied at the ophthalmic pathology laboratory at the Wilmer Institute over a five-year period, and no instances of metastatic lid tumor were reported. Reese² discusses metastatic carcinoma to the uveal tract and orbit, but makes no mention of metastatic tumor of the lids. Duke and Walsh³ report a case of metastatic carcinoma to the retina. No references to metastatic carcinoma of the eyelid could be found.

Summary: A case of metastatic carcinoma to the eyelid from a primary adenocarcinoma of the breast is reported.

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†From McKee-Wilson Eye Hospital, Johnson City, Tenn.

STAFF CONFERENCE

Vanderbilt University Hospital*

- (1) Recurring meningitis associated with a pituitary tumor
- (2) Atresia of the aqueduct of Sylvius
- (3) "Pseudotumor cerebri"

DR. BERTRAM E. SPROFKIN: We are presenting three patients today who constitute rather challenging and complex problems. The first case will be presented by Dr. Isom.

DR. JOHN B. ISOM: This 40 year old man was admitted to the Vanderbilt University Hospital one week ago. His present illness began in January, 1955 when he was admitted to the local Veterans Administration Hospital in a semi-stuporous and combative state. His family reported that he began to complain of headache one week prior to admission. The day before hospitalization the headache had increased in severity and no longer responded to simple medications. That morning he was found to be irrational and febrile. His local physician referred him to the hospital. At the time of admission he was found to have a stiff neck and a temperature of 104°. The white blood cell count was greatly elevated and a lumbar puncture revealed turbid spinal fluid under a greatly increased pressure. Some Gram positive diplococci were noted on a smear of the spinal fluid but no organisms were grown on culture. He was treated for a possible pneumococcal meningitis with sulfadiazine and penicillin. He responded satisfactorily and was asymptomatic within two weeks. Skull films revealed a greatly expanded sella turcica. There was some erosion of the clinoid processes and the floor of the sella communicated with the sphenoid sinus as a result of erosion. It was concluded that this communication between the subarachnoid space and the sphenoid sinus constituted the pathway by which the offending organism gained entrance to the meninges.

He was given a leave of absence for one month and returned to the hospital in April, 1955 when a craniotomy was done. This was reported to have disclosed a large aneurysm of the anterior communicating artery and it was thought that this aneurysm had eroded into the sella turcica. A single silver clip was applied to the stalk of this aneurysm. The post-operative course was uneventful. In June, 1955 he was readmitted for arteriography and no aneurysm was demonstrated. In October, 1955 there was a recurrence of the fever, headache and stiff neck and again he was

found to have pneumococcal meningitis. He responded satisfactorily to the same treatment. Since that time he has been given prophylactic oral penicillin whenever an upper respiratory infection occurred. It should be added that about two years later another arteriogram was done which again proved to be negative.

His present admission to this hospital is occasioned by his complaint of poor vision. It is known that he had a bitemporal hemianopsia at the time of the initial operation but it is thought that his visual difficulty may have been progressing during the past several months. Endocrinologic study indicated only a slight depression of his pituitary reserve, and treatment with thyroid extract was recommended.

DR. SPROFKIN: We have here a recent skull film (Fig. 1) which illustrates the ero-

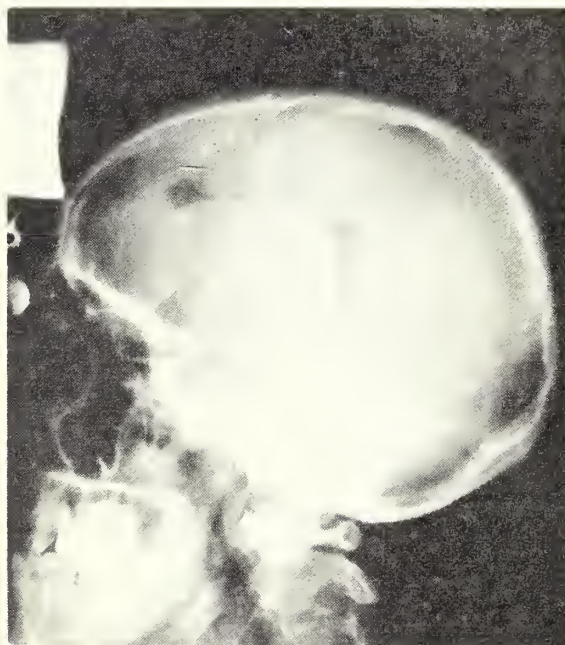


FIG. 1.

sion of the sella turcica. The bur holes and defect of the previous craniotomy, as well as the lone silver clip, are apparent on this lateral view. The radiologist, Dr. Joseph Allen, thinks that there may have been some slight further enlargement of the sella turcica during the past few years. Dr. Capps, would you please give us your opinion as to whether there have been progressive changes in this patient since you first operated upon him.

DR. JOE M. CAPPS: Yes, I think his sella has changed considerably, and his visual fields have become further restricted since we first saw him. I also believe that he has been exhibiting increasing symptoms of pituitary failure. He becomes fatigued much

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more easily and his general appearance impresses me as that of a patient with hypopituitarism. His pubic and axillary hair are diminished. When I question him about his thirst, he tells me that he drinks large quantities of water and has considerable urinary frequency. I wonder if he is not developing early diabetes insipidus. This is the primary reason for my referral to the endocrine clinic. I believe that he probably has a pituitary tumor and should receive X-ray therapy.

DR. SPROFKIN: It is Dr. Capps' opinion then, that this patient who was thought to have an aneurysm of the anterior communicating artery also has a chromophobe adenoma of the pituitary. Dr. Meacham, what are your ideas regarding the lesion in this case?

DR. WILLIAM MEACHAM: This patient originally was thought to have a pituitary tumor at the time of the craniotomy. I was told that the aneurysm involved the anterior communicating artery and was dependent, hanging down toward the sella turcica. Even if this is true, the patient could also have a pituitary adenoma. It is difficult for me to rationalize one feature about this case, namely, that an aneurysm originating in the anterior communicating artery and extending inferiorly could produce by compression from above a bitemporal hemianopsia of the type that one might expect to see with an intrasellar mass, because if this is true, I should think that his subsequent arteriograms would have revealed some vascularity or some remnant of this aneurysm if all of his symptoms were due to this lesion. Furthermore, an aneurysm large enough to fill and erode the entire sella and coming from the anterior communicating artery would hardly have been secured with only a single silver clip and leave the patient as neurologically intact as he is at present. I believe that I would agree then with Dr. Capps that we have here a combination of three clinical situations, all of which might have contributed to this man's symptomatology. In the first place, recurrent episodes of meningitis could have resulted in some chiasmatic arachnoiditis with some visual impairment; secondly, an aneurysm of the anterior communicating artery extending down behind the optic chiasm

could also have contributed to the visual difficulty, and thirdly, I believe that this man also has an intrasellar neoplasm which is continuing to involve his visual pathway and is producing symptoms of hormonal insufficiency. The postoperative arteriograms should be sufficient reason to rule out any lesion other than an intrasellar one, assuming that they were done bilaterally. At any rate, I feel that this man's situation does not at this moment demand surgical exploration. I would agree that he is a candidate for radiation therapy if he is really having a progressive visual loss.

DR. SPROFKIN: I would also question that this man could possibly have had an aneurysm capable of eroding the floor of the sella turcica and extending into the sphenoid sinus without at the same time producing rather extensive signs of pituitary insufficiency. Certainly the problem of a pituitary adenoma eroding the floor of the sella and establishing a communication between the sphenoid sinus and the subarachnoid space has been encountered by all of us before. These patients often require prophylactic antibiotic therapy since any minor respiratory infection with involvement of the paranasal sinuses could lead directly to a meningitis. This man has gotten along quite well with the help of prophylactic penicillin. One might question whether he should not be given a broader spectrum antibiotic for future prophylactic therapy.

It should be added that the ophthalmologist thought that the visual fields at present show a further increase in the bitemporal hemianopsia and that both optic nerves exhibit changes consistent with atrophy.

Subsequent Course

This patient subsequently was treated with cobalt radiation to the pituitary region, receiving a total of 4,400 r during the period May 9, 1960 to June 7, 1960. He was also placed on one gram of thyroid extract per day and will be followed in the endocrine clinic.

DR. SPROFKIN: Our second case is an interesting problem in pediatric neurology. It will be presented by Dr. Ashby.

DR. RICHARD ASHBY: This 11 year old boy was referred to the neurosurgical service because of difficulty with his vision. He was entirely well

until about one month ago when it was noted at school during a routine eye examination that he did not see well with his right eye. He was sent to an ophthalmologist who found that he had optic atrophy and referred him to this hospital. The parents have also noted that his right eye often drifts laterally. There is no history of headache and he has been otherwise well. The right optic nerve head was pale and there was a mild papilloedema on the left. X-ray examination of the skull revealed erosion of the clinoid processes, separation of the sutures and increased digital markings (Fig. 2). Yesterday a ventriculogram



FIG. 2.

was done which reveals considerable dilatation of the ventricles (Figures 3 & 4). He is scheduled for operation tomorrow.

DR. MEACHAM: This case history certainly points up the value of the routine

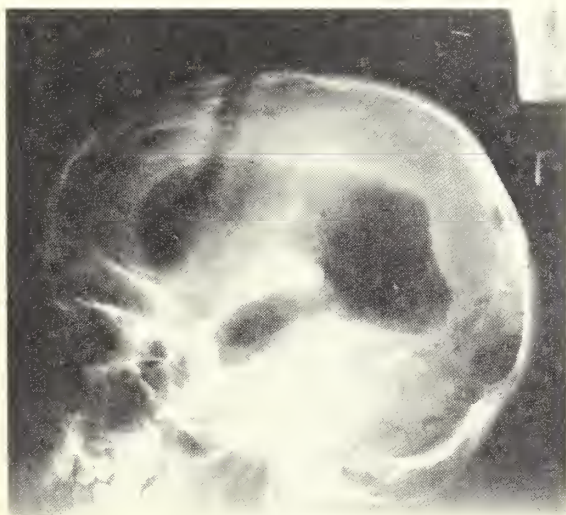


FIG. 3.



FIG. 4.

visual examinations which are carried out by the school nurse. This child is bright and has done excellent work in school. The visual impairment was detected upon reading the Snellen test charts, and the ophthalmologist subsequently found evidence of optic atrophy. When I first saw this boy the pale optic disc on the right and the questionable swelling of the left nerve head were the only deficits. The wandering of his right eye on convergence is related to the impairment of vision on that side. I was not at all certain that he had a MacEwen's sign although after witnessing these plain films of his skull the percussion note seems to have more of a "cracked-pot" quality. Because of this wide separation of his sutures, the sellar enlargement and the erosion of the posterior clinoids there can be no question about the fact that he has had increased intracranial pressure of long standing. I think it is extremely fortuitous that situations like this in which a bright, otherwise healthy youngster has the obstructive hydrocephalus which is demonstrated here on these X-rays can exist without a complaint of headache. Actually, the sutures of the skull are being slowly spread apart, his ventricles are three to four times

the normal size and yet he has never been ataxic and has not had any degree of headache, nausea or vomiting. We do not know whether we are dealing here with a partial congenital atresia of the cerebral aqueduct or whether he has a silent neoplasm obstructing his posterior fossa or even a congenital occlusion of the outlet of the fourth ventricle. Whatever it is, it is certainly a classic demonstration of an instance of increased intracranial pressure which is well compensated and has not reached the stage where the alarming symptoms of intracranial hypertension occur. We plan to explore the posterior fossa, and if a removable lesion is encountered we shall treat it accordingly. If he has an obstructive lesion of a non-neoplastic variety, we shall probably carry out a Torkildsen ventriculocisternostomy as a shunting procedure. We have avoided definitive surgery immediately following the ventriculogram, as is our usual practice, because we felt that the hydrocephalus was so well compensated because of its prolonged duration that the ventriculogram could be done as an isolated procedure.

DR. CULLEY COBB: The deformity of the skull and the wide suture separation are certainly suggestive of an aqueductal stenosis. The fact that the posterior third ventricle fills well is against the diagnosis of a pineal tumor. A tumor of the fourth ventricle large enough to produce such a picture would probably deform the posterior part of the third ventricle. Then, of course, the absence of any ataxia is against such a tumor. I should think that the best diagnostic possibility would be an aqueductal stenosis.

DR. SPROFKIN: We shall eagerly await the results of the craniotomy. I am inclined to agree with Dr. Cobb's suggestion that this patient may have an aqueductal atresia.

Subsequent Course

At suboccipital craniectomy on May 6, 1960, the cerebellar tonsils were found to be herniated below the level of the first cervical vertebra. There was no evidence of a tumor between the cerebellar hemispheres. The cisterna magna was small but contained fluid. A catheter passed through the fourth ventricle met an obstruction in

the aqueduct, and therefore a shunting procedure was done. The patient improved progressively and was discharged with the final diagnosis of atresia of the cerebral aqueduct, with secondary optic atrophy and obstructive hydrocephalus.

DR. SPROFKIN: Our third and last case of this conference will be presented by Dr. Robert Richie.

DR. ROBERT RICHIE: This 35 year old man was admitted to the hospital on April 27, eight days ago, because of headache. One and one-half years prior to admission he noted the gradual onset of a dull headache which he referred to the retro-orbital region bilaterally. About six weeks before admission the headache became more severe and about two days before he entered the hospital he began to vomit. His local physician noted that he had bilateral papilledema and referred him for hospitalization. Upon initial examination blood pressure was 128/78, pulse rate, 68 per minute and respirations, 16 per minute. He was in no distress. Examination of the heart, lungs and abdomen was within normal limits. Neurologic examination was entirely negative except for a definite bilateral papilledema. On May 2 he had a right carotid arteriogram which was within normal limits. On May 3 a ventriculogram was performed and this morning a left carotid arteriogram was done. All of these were within normal limits.

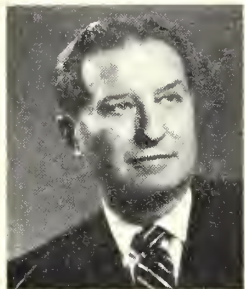
DR. MEACHAM: As Dr. Richie indicated, all of our contrast studies failed to reveal evidence of a mass as an intracranial lesion. We are faced with the problem of a patient who has unmistakable progressive papilledema and clinical signs indicative of intracranial hypertension without evidence of a localized lesion. Such a patient may fall into that ill-defined category known as pseudotumor cerebri. This is a syndrome which one diagnoses with a certain degree of tongue-in-cheek philosophy because these patients may still harbor an intracranial neoplasm which has not progressed to the stage where it can be diagnosed. This patient will be followed very closely for possible subsequent neurologic developments.

Subsequent Course

This patient was seen by Dr. Meacham about two months after the above presentation. At that time there was no papilledema and he was asymptomatic. He will continue under observation but at present is being considered among those poorly understood cases which are referred to as "pseudotumor cerebri."

President's Page

THE COST OF MEDICAL CARE



RALPH O. RYCHENER,
M.D.

A timely subject with most politicians these days is "the cost of medical care." The same topic holds a high priority with the press and the public, which makes one wonder if physicians should not become more aware of the problems that confront them in providing the proper answers to the questions that may arise on this subject.

Several national magazines have carried stories unfavorable to the medical profession concerning medical care cost. No matter what we think of the brave new world that looms ahead; no matter how we may despise undeniable trends towards social living, organized medicine is doomed to a future of complete federal control unless it chooses to lead instead of dragging its heels. We are aware that our patients read articles such as "We've Got To Regulate Doctors' Fees" with much more than passing interest, so it is an obligation upon us to become better informed about the broad subject of the cost of medical care.

Even though the public expenditure for medical care in the United States increased from 7.7 billion dollars in 1948 to 16.3 billion in 1958, the actual percentage of cost remains about the same. In 1938, the public spent 4.7% of its disposable income after taxes for medical care, including fees for physicians and dentists, hospital charges, and amounts paid for drugs. Today it can be shown that 4.6% of the same disposable income goes for medical care even though the cost of living continues to rise.

Health Information Foundation reports that the average American spends \$94 per year for all health goods and services. About a third of this total goes for physicians' care which includes fees for home and office calls. This represents three-fifths of the total paid to physicians.

All physicians should carefully weigh the problems involved with the rising cost of medical care or the federal government will take over all medical care completely. The government has a legitimate function, but it certainly should not compete with the practice of medicine. Any project aided by federal money is a form of subsidy which leads to more central governmental control. More governmental control means less individual freedom.

Perhaps there is a need for re-evaluation in our generation when Americans are enjoying the greatest economic boom in history. Wages, salaries, dividends, investments and interest rates are ever reaching new plateaus. People are going places and doing things. The upward trend in home building and remodeling is another evidence of the public's confidence in the economic future of America.

What about the economics of the Nation's health? It would appear that we, the medical profession, have an important public information job to perform. We must show the public just what good medical care costs. Every member of our Association must share this responsibility and render this service to his patient.

Ralph O. Rychener, M.D.

President

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SEPTEMBER, 1960

EDITORIAL

EMOTIONAL CONTROL OF SODIUM AND WATER

The relationship of man's emotional behavior to his physical status has been a source of much conjecture. The "will to live" has been a term used to explain medicine's failure to achieve cure when a success seemed probable, or to explain success when failure seemed inevitable. A physiological explanation of the "will to live" has not been available. Recently Barnes and Schottstaedt¹ have studied the relation of emotional state to the renal excretion of water and electrolytes in patients with congestive heart failure. This may explain the "will to live" in certain patients on a physiological basis.

An association between stress in life's situations and variations in urinary volume has long been known. MacKeith reported that tension preparatory to running a race was associated with inhibition of urinary output, and Mohr published observations

demonstrating diuresis during anxiety. These studies suggested that stimuli with emotional significance might give rise to either an increase or a decrease in urinary output. Chambers² noted that stress either in the form of rage and frustration, or in the form of rejection and the loss of security, might precipitate congestive failure. The hemodynamic changes associated with anger are easy to understand, but those changes which precipitate or accentuate congestive failure as a result of tension and discouragement have not been easily understood.

Schottstaedt, Grace and Wolff, working with healthy subjects, showed retention of sodium and water in situations of tension and depression, followed by diuresis of water during periods of relaxation. Now, Barnes and Schottstaedt, working with patients who have congested failure, have demonstrated sodium and water retention during periods of tension and despair and diuresis of water with excretion of sodium during periods of relaxation. Although the patients studied consumed the same quantity of sodium each day, the urinary excretion of sodium varied greatly and these fluctuations correlated well with changes in emotional state. Conversely, during excitement, apprehension and anger, an increased output of sodium and water was noted. Little change was found in potassium excretion attributable to stressful behavior.

The mechanism responsible for variations in sodium and water retention has not been clarified. Certain studies suggest that there is an increased release of antidiuretic hormone. Another mechanism suggested, which may be a factor, is aldosterone secretion, perhaps secondary to changes in arterial vessel size occurring in association with stress. It is conceivable that both mechanisms play a roll in altering the excretion of sodium and water.

It is common to find that patients with heart failure have had some precipitating factor for the episode of decompensation. Excessive exercise, infection, and increased sodium intake have frequently been mentioned. To these should be added emotional stress. During periods of tension or depression, sodium output may be reduced to less

than twenty per cent of the output during tranquil periods. This suggests that, in a patient with decreased cardiac reserve, prolonged periods of tension or depression could lead to serious derangements of homeostasis by the mechanism of fluid and sodium retention.

If the physician is alert to the presence of feelings of depression or tension in his cardiac patients, he can often relieve these feelings. Certainly he can avoid actions and statements which might enhance such feelings. While the physician is caring for the patient, he should be aware of the therapeutic importance of his relationship. A reassuring attitude on the part of the physician may be of substantial importance in the therapy of congestive heart failure.

A. B. S.

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GROWTH OF VOLUNTARY HEALTH INSURANCE IN GREAT BRITAIN

In last month's issue the question was raised as to means of combatting any tendency toward a "socialization" of medicine, and the question of influencing the voter whether on the candidate as a person or as against issues upon which he may need to take a stand.

Though we have had no threat of wholesale compulsory insurance since the Murray-Wagner-Dingall days, everyone admits (no matter on which side he stands on this question) that enough segments of the population have been made beneficiaries of governmental largesse in the health area so it is only a matter of time until most of the people will be included in an overall scheme. For good quality of medicine then, based on the competition which free choice of physicians provides, we hope we may hold the forces of "free" medicine in check by health

and hospitalization insurance for the employed, and the provision of aid and care of the medically indigent, of whatever age, through *local government* with assistance for such programs by federal funds if necessary.

To answer patients who may raise questions relative to governmental plans for medical care, and queries regarding the British system which has been widely publicized, information regarding the growth of voluntary health insurance in Great Britain may be pertinent. "The proof of the pudding lies in eating it." Why should voluntary health insurance grow if all is well?

Sometime ago the Director of Information and Research for the Health Insurance Association of America reported his findings after a decade of the National Health Service in Great Britain.¹ The people of England had not developed the same interest in, or degree of coverage by health insurance as in this country, prior to the nationalization of medical care in 1948. Of particular interest is that the National Health Service not only has not eliminated voluntary health insurance, but has actually stimulated a need and demand for privately purchased insurance.

The author defines terms necessary for complete understanding of the British system. Insurance companies in that Country wrote little in terms of hospital or medical insurance, providing coverage rather for loss of income due to accidents or illnesses. Before 1948 there were two other schemes for protection against medical costs and similar to Blue Cross in many respects. There were the "hospital contributory schemes" and the nonprofit organizations called "provident associations"—both were similar in many respects covering hospitalization, costs of surgery, payment of fees for consultations and specialists, and at times convalescent home care, dentures, optical and surgical appliances, etc.

As is well known, the National Health Service (N.H.S.) has needed to retract complete "give-away" medicines, dental care and optical aids. This fact may account for growth of the "hospital contributory" schemes. (In 1953, there were 39 such organizations with 3,612,798 contributors, coverage including eligible dependents.) Of

1. Follmann, Jr., J. F.: Surprising Growth of Voluntary Health Insurance in Great Britain, *J.A.M.A.* 168:1641, 1958.

more importance are the "provident associations" which provide coverage mainly for private accommodations, fees for surgeons, consultants, specialists, home nursing care, nursing homes and diagnostic services. It is estimated that one-quarter of the population of England and Wales is covered by these organizations. One prominent one alone increased from 34,000 contributors in 1949 to over 300,000 in 1958—dependents must be added to these figures.

The reasons for the growth of the provident associations are those enumerated in the past on these pages. Follmann points to the waiting periods for hospitalization. In 1956, it was said there were 431,000 persons awaiting hospitalization. In general surgery, the wait varied from 53 days in non-teaching hospitals to 70 days in provincial teaching hospitals. In ear, nose, and throat diseases the wait was 87.6 days for London teaching hospitals to 135 days in nonteaching hospitals. An important reason for the growth of the provident associations is for assistance in engaging specialists' treatment on a free-choice basis rather than assigned surgeons and specialists under the N.H.S.

The author of the report referred to moves underway by members of the profession to stimulate interest in voluntary health insurance and private medical care. Another organization not related to "organized" medicine is the Fellowship for Freedom in Medicine in an attempt to set up an alternative plan to the National Health Service, with possibly government contributing to premiums for those unable to pay.

Voluntary health insurance did not have the impetus before N.H.S. that it had had in the United States. British philosophy and economic factors did not use the group approach or the employer-employee cooperation in health insurance. Also, it did not give the degree of coverage provided by American insurance plans.

In any event, the important point is that the National Health Service does not provide all the answers to adequate medical care, and that voluntary health insurance fills the gaps. With the growth of voluntary health insurance one wonders if the National Health Service will not be altered ultimately, and that it eventually will cover the indigent. The lesson to be learned by

our Country is that the voter and taxpayer had better move slowly in the direction of costly experiments and permit voluntary health insurance to come to full flower before abandoning it as the means to pay the cost of illness. Here are strong points for the intelligent voter.

R. H. K.

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Special Item

Medical Ethics and their Significance*

Carroll H. Long, M.D., Johnson City, Tenn.

By simple definition a profession is distinguished from a business or a trade in being organized for service to humanity rather than for material profit. In its Principles of Medical Ethics, the American Medical Association gives full weight to the distinction in these words: "The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion." Traditionally, in all societies, physicians have been self-committed to serving men in an intimate relationship demanding trust and mutual respect.

Rapid social change like that in the twentieth century necessarily affects the condition and relationships of many elements in society. The shifting focus of the physician-patient relationship is being brought acutely to the attention of both the medical profession and the public today. There is now universal demand for wide distribution of all fundamental services to all people, rich or poor, ignorant or learned. Medicine is one of the vital functions of the social organism, and whether we like it or not, it is no longer an individual affair between physician and patient. Medicine is for everyone; it is not a private game preserve. And organized medicine will disregard public demand at its own peril.

During my student days I frequently read a bronze plaque affixed to the wall in the

*A talk to component medical societies upon occasion by Chairman of the Council, Tennessee State Medical Association.

medical school quadrangle. It was a quotation from Robert Louis Stevenson, an engineer as well as a writer. In describing the physician of his day he wrote: "There are men and classes of men that stand above the common herd; the soldier, the sailor and the shepherd not infrequently; the artist rarely; rarelier still the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Heracleian cheerfulness and courage." This was indeed a beautiful tribute to our profession. Was it justified when it was written? Would it be justified today? Or what is more important, would a present-day man of letters believe himself to be expressing public sentiment in such a glowing tribute? Surely new influences are affecting the medical practitioner of our day—influences which we need to examine.

Of prime importance is the great care being exercised today in the choice of medical students. Tests have been devised to measure the aptitude of the individual applicant for a medical career, and to weed out those unfitted by temperament or intellectual capacity to undertake the exacting demands of medical training. Comparable progress has not been made, however, in evaluating an applicant's ethical standards and his motivation. Deans and admissions committees recognize the importance of prognosticating in these areas and are searching for applicable criteria.

A second influence at work reflects the phenomenal advance in medical knowledge in the last few decades. The medical school curriculum becomes more crowded year by year. Anatomy, at which I spent two years, is now being telescoped into three months to make way for new material with which my college years were not concerned. Unfortunately, in the press for time, the teaching of medical ethics, either by emphasis or in formal classes, is being neglected.

Nor have we as professional men made advancement equal to the multiplication of problems. Our county, state and national organizations have Boards of Censors, Griev-

ance Committees, and Councils which function to some extent in the punishment of blatant offenders. But sanctions are more often invoked against those who offend our own sensibilities than against those who victimize the public. Who can remember organized medicine taking action against a member who has operated needlessly, or who has merchandized drugs or appliances, or used outmoded cancer cures?

Our performance has been better within the organized structure of hospitals where there has been developed an effective method of dealing with disciplinary problems. The organization of the present-day hospital with its medical records committee and its tissue committee has established the principle of supervision of each physician's practice by his peers. Whether this has been voluntary or enforced by accrediting agencies it has had good results, and no one would return to the old system in which each physician was the final authority without pressure from his medical associates. The public has learned to expect these controls. As a result, the excellence of hospital practice is approaching uniformity throughout the country.

One of the greatest temptations faced by the physician is his understandable desire for professional prestige measured in terms of hospital admissions, numerous operations, or office volume. The normally ambitious but honest physician must constantly ask himself whether the patient actually needs a given service or whether his own ambition for a large following determines the decision as to therapy.

If we extend these problems of the individual physician to the profession as a whole, a great number of ethical questions are posed. For example, is it possible that a change in attitude is occurring among us? Are we now trying to establish an easy existence through group arrangements, limited working hours, regimentation of patients? Are we shedding to some degree our role as public servants in favor of a status less intimate—all in the name of the new scientific medicine? Is there something significant in the newspaper reports of medical society meetings devoted to investment policies and to trends in the stock market? Is our hesitation to police ourselves in office

procedures due to strong economic pressures or to our indifference to the traditional idealistic mission of our noble profession?

Let us examine frankly some of the abuses of which all of us are cognizant but against which we exert little concerted group effort. The public has found the expense of medical care greatly increased, in large part by the rising cost of medicines. This is true even of drugs prescribed with purpose and care and in their most effective form. Certain unscrupulous physicians, however, for the sake of personal gain are bringing additional economic hardship upon their patients and unnecessary discredit to the entire profession by insisting upon the parenteral administration of drugs which could be given just as well by other, simpler and less expensive methods. This practice is clearly unethical.

Closely akin is the custom of certain physicians of merchandizing appliances or drugs for profit. The Principles of Medical Ethics of the American Medical Association is very clear and concise on this point: "In the practice of medicine a physician should limit the source of his professional income to *medical services* actually rendered by him, or under his supervision, to his patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient." To my mind this precept of the American Medical Association and common ethics as well require that a physician dare to set his fee at what his services are worth in relation to the patient's ability to pay, without subterfuge in hiding charges in "profits" to be derived from dispensing drugs or supplying prostheses of various sorts. These may be dispensed by the physician ethically only "provided it is in the best interests of the patient" and provided the physician does not degrade the profession by becoming a merchant for profit in the transaction.

Even more unethical is the practice of some physicians of professing to furnish professional services for which they are not qualified. Typical of this is the untrained man who for the sake of the fee takes x-ray pictures which he is not qualified to read or carries out complicated laboratory proce-

dures which require the services of the expert in interpretation.

I am glad to recognize that the problem of fee splitting, so troublesome in some areas of the country, has no place among us in Tennessee. On this point we can commend ourselves. May we never have cause to revise this bit of self-evaluation!

The several evils of which I have just spoken have developed in the hands of men who skirt the edges of unethical conduct for the sake of the unearned dollar. But what are we to say of incomes derived from unjustifiably high fees? Is the man who charges all that the traffic will bear, and possibly a little more, unethical or just a good business man?

Admittedly one of our great problems is to know what to charge for our services. No one will deny the physician's right to adequate compensation but the public has come to expect, and I believe justly so, that every man, woman and child will have adequate medical care within his economic reach. This means that we as physicians must take much of the responsibility in the planning of ancillary services and in the provision of economic medical care. There should be no place in medicine for a practitioner who victimizes his patients by unjustifiably high fees. If socialized medicine comes in our time it will come in large part because distribution of medical services is hampered by their cost. The healing arts traditionally have been practiced by men and women who have sacrificially served all people, rich and poor. We must never forsake this obligation. In decisions concerning fees we should err on the side of mercy; we may earn a little less money, but we will thereby serve our profession as well as our patients, and confound the proponents of socialized medicine.

One of the principles most dear to medicine is the right of the patient to free choice of physician. Without preservation of this principle the intimate relationship between patient and physician is lost, and the integrity of the personality of both parties suffers. In numerous actions we protect this principle in hospital and clinic practice. We emphasize it in discussion of the evils of socialized medicine. Part and parcel of this concept should be the right of the pa-

tient to choose freely his consultants within the bounds of professional acceptability. No obstacle must be placed in the way of the patient who wishes his physician to consult with another. The qualified physician does not fear the scrutiny even of his most active competitor, and the honest consultant does not take advantage in such situations.

Ethics as understood in medicine imply courteous and friendly relationships between all legitimate and conscientious people practicing the healing arts. We should have an especially warm understanding of each other. Our existence will be more pleasant if we achieve a feeling of well-being based upon lives of service to ailing humanity practiced in the company of like-minded people whom we regard as fellow-workers and close friends. Such comradeship should not blind us, however, to our mutual short-comings. Especially should we be wary of the occasional physician who brings opprobrium upon his profession by incompetence, unethical conduct or commercialism. More sympathy can be displayed in instances in which unwitting poor judgment or circumstances beyond his control have brought distress to the physician or his patient. Such sympathy must never dull us, however, to the equities of any given situation. I have upon occasion heard a thoughtless physician describe with some pride how he has "protected" a fellow-practitioner by colored testimony upon the witness stand. Such conduct can find no justification upon the ground of brotherhood. On this point, Principles of Medical Ethics has a forthright statement: "The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed discipline. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession."

It is well to remember that to many people physicians are persons apart—spectacular, admired, possibly envied, and very much under scrutiny. What we do is news—particularly if we misbehave. What we don't do properly is a matter of notice and often of gossip. Unseemly ostentation, care-

less talk, improper use of alcohol, irresponsible conduct of any kind are noticed quickly by the public. Unfortunately, what errors the individual commits bring discredit upon all. For this reason, each physician has a responsibility, not only to himself, but also to his whole profession. Personal purity, or a reasonable approach to it, becomes a necessity.

Beyond the range of personal and professional responsibility the physician has the added obligation of every citizen to participate in civic and community affairs. The ideals of the profession imply the physician's interest in the health of society at large. But the public looks to him for leadership not only in matters pertaining to health but also in areas of civic endeavor for which his better than average education and training fit him. To my mind acceptance of civic responsibility is a matter of ethics.

Another obligation involves an ethical principle universally honored among us. Chaucer, a man of letters, phrased it most succinctly: "and gladly would he learn and gladly teach." The American Medical Association Principles states it in these words: "Physicians should strive continuously to improve medical knowledge and skill, and should make available to their patients and colleagues, the benefits of their professional attainments." No doubt many of us need to be more diligent in searching for broader knowledge and in reporting our observations. Opportunities for learning confront us everywhere. We need only to provide attention and energy to continue learning and teaching through all our professional life. This is our ethical obligation.

Finally, I believe we must ever keep an awareness that present-day medicine is not perfect either in its scientific understanding or in its organization. We must recognize first, the necessity of a continuing revision of professional concepts and, second, the essential character of ethical conduct. We must fulfill our role as a service group devoted to the public weal primarily, privileged to attain a position of community leadership and, incidentally, to earn a competent living. Medicine must not assume an attitude of unbending rigidity in its relationship with the public. We must have

constantly in mind the admonition of Oliver Cromwell, who said, "By the bowels of Christ, my brethren, bethink you, you may be mistaken." As individual practitioners we must practice honest, competent medicine, and collectively we must seek to relieve the distress of the medically underprivileged: the indigent, the self-respecting poor, the elderly, the inhabitants of isolated areas, the medically uninsurable, the ignorant who are easy victims of the unscrupulous.

Men of medicine have vast responsibility, boundless opportunity, remarkable privilege. Have they the wisdom? We are being tested today as never before. Our reputation as men of science is undiminished, but our acceptance as public benefactors is declining. To retain the position earned by many centuries of public service will require application of all our powers of intellect and humble devotion to suffering humanity.

DEATHS

Dr. Numa Haden Crews, 71, Greeneville, died May 11th of coronary thrombosis.

Dr. Osear Stegall, 46, Memphis, died at his home on July 25th.

Dr. Jack Sternberg Goltman, 58, Memphis, died August 7th at his home as the result of a heart attack.

Dr. Edwin Morris Peete, 82, Memphis, died August 5th at the Memphis Baptist Hospital.

Dr. Charles W. Green, 95, Harriman, died July 11th at Harriman Hospital.

Dr. William Robert Cate, Jr., 37, Murfreesboro, died August 1st.

Dr. Joseph P. Keller, 85, Nashville, died August 10th at his home.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Roane County Medical Society

The regular monthly meeting of the society was held on August 30th in the Oak Ridge Hospital. Dr. Warren Glaser, Department of Medicine, State University of New York, was the speaker and his subject was "Clinical Applications of New Information on Kidney Function."

The society also had an interesting pro-

gram on September 26-27-28. Open house was held in the hotel on September 26th honoring Dr. and Mrs. Charles Rea. Dr. Rea is clinical professor of surgery at the University of Minnesota. Doctors and their wives were honored at a Buffet Dinner on September 27th. On September 28th, the Dwight Clark Memorial lecture at the Jefferson Junior High School was presented by Dr. Charles Rea. The topic was "Goiter and Man."

Knoxville Academy of Medicine

The Academy met on the evening of August 9th in the Academy Building. The scientific program was presented by a guest speaker, Dr. Louis C. Robbins of Washington, D. C. Dr. Robbins is chief of the Cancer Control Program, U. S. Public Health Service. His subject was "Cancer Control in the Next Twenty Years."

Memphis-Shelby County Medical Society

The Memphis and Shelby County Medical Society met in regular session on Tuesday, June 7th in the Pathology Building Auditorium. The scientific program consisted of the following: "Tinea Capitis in School Children"—Nobel Guthrie, M.D.; "Tinea Capitis in Private Practice"—J. O. Priestly, M.D.; and "Polychondritis, Polyarthrititis and Inflammatory Eye Changes"—Alvin J. Ingram, M.D. These interesting and informative papers were discussed by a number of those present.

On July 5th, the society heard a symposium on "Chronic Ulcerative Colitis." The meeting was held at the Institute of Pathology Building. Participants were Drs. A. J. Cummins, Michael Gompertz, Richard O. Bicks and Jack Greenfield.

A symposium on trauma was presented by the society on August 2nd in the Institute of Pathology Building. Panelists included Drs. William Morse, Joseph Lougheed, Malcolm Aste and D. F. Fisher. Dr. Moore Moore, Jr. acted as Moderator.

Anderson-Campbell County Medical Society

The society met for its monthly meeting on July 28th at the Russell Hotel in LaFollette. Dr. Thomas Goyer of Memphis was the guest speaker. Dr. Goyer spoke on allergies.

NATIONAL NEWS

The Month in Washington

(From the Washington Office AMA)

Democrats and Republicans are campaigning on opposing planks on the issue of health care for the aged. The Democratic party advocates the Social Security approach; the Republican party favors federal aid in the field, but outside the Social Security system. The G.O.P. plank pledged: "Development of a health program that will provide the aged needing it, on a sound fiscal basis and through a contributory system, protection against burdensome costs of health care. Such a program should:

"Provide the beneficiaries with the option of purchasing private health insurance—a vital distinction between our approach and Democratic proposals in that it would encourage commercial carriers and voluntary insurance organizations to continue their efforts to develop sound coverage plans for the senior population.

"Protect the personal relationship of patient and physician.

"Include state participation."

The key paragraph of the Democratic plank stated: "The most practicable way to provide health protection for older people is to use the contributory machinery of the Social Security system for insurance covering hospital bills and other high cost medical services. For those relatively few of our older people who have never been eligible for Social Security coverage, we shall provide corresponding benefits by appropriations from the general revenue."

Charles H. Percy, Chairman of the G.O.P. Platform Committee, stated that the reference to a "contributory system" in the Republican plank did not mean a Social Security tax.

Presidential and Vice Presidential candidates of both parties went into the election campaigns pledged to support the health-care-for-the-aged planks adopted by their respective conventions. Vice President Richard M. Nixon, the G.O.P. Presidential nominee, already was on record as unalterably opposed to any program of national com-

pulsory health insurance. The long-established position of Senator John F. Kennedy of Massachusetts, the Democratic Presidential candidate, has been "that only by use of the Social Security system can we have true health insurance."

Speaking for the American Medical Association, Dr. Edward R. Annis of Miami, Florida, appeared before the platform-drafting committee of the Democratic convention at Los Angeles, and Dr. Leonard W. Larson, AMA President-elect, before the Republican policy group at Chicago.

The AMA spokesman warned both parties that a program following the Social Security approach "would be unpredictably costly; it would unnecessarily cover millions of people; it would substitute service benefits for cash benefits; it would lead to poorer—not better—quality of medical care; it would overcrowd our hospitals; it would lead to the decline, if not the demise, of private health insurance; and it would interfere dangerously with the doctor-patient relationship, which is the solid foundation upon which effective medicine must be based."

Dr. Annis also urged support of the House-approved Mills plan to provide health care for the needy aged who need help with the federal government and the states sharing the costs outside the Social Security mechanism.

In an advertisement run in some large daily newspapers in mid-August, the AMA outlined its reasons for supporting the Mills plan, the ad said, in part:

"The AMA believes our nation, as well as its senior citizens, will best be served by a locally administered health aid program designed to **HELP THOSE WHO NEED HELP.** . . .

"We are equally sincere in our opposition to legislative measures that approach the problem on a shotgun basis—with the idea of increasing repeatedly the Social Security tax in order to finance health benefits for **EVERYONE** who is covered by the Old Age, Survivors and Disability Insurance program, regardless of their need.

"There are many serious hazards in using the Social Security approach to finance medical and hospital care for our older citizens. When government starts telling the

doctor how to practice medicine; telling the nurses how to nurse; telling the hospital how to handle its patients, the quality of medical care is sure to decline. The cost of such a program eventually would be staggering, and would make a serious dent in the pay envelopes of millions of Americans covered by Social Security. Private, voluntary health insurance, which has been doing such a magnificent job, would be undermined and, in time, destroyed.

"Most important, perhaps, is the fact that such an approach would just be the beginning of compulsory, government-run medical care for every man, woman and child in the United States. For it wouldn't be long before the Federal Government would be lowering the age at which people would be eligible, and adding one costly service after another to a program that would place patient and doctor under the Federal Government's thumb. And let's not forget that our present health care is recognized to be the world's finest."

Physician Population Increases

The physician population of the United States and its possessions increased by some 4,769 in 1959, the Council on Medical Education and Hospitals of the American Medical Association reported recently.

This was an increase of 660 over the gain reported in the previous year, according to the council's report.

The increase of 4,769 results from the licensing of 8,269 new physicians minus approximately 3,500 physicians who died. Of the 8,269 new physicians, 1,626 were foreign-trained. The largest number of first licenses issued was 1,121 by New York. Three other states issued more than 500 first licenses—California 676, Illinois 521 and Pennsylvania 530.

The most notable increases, compared with 1958, were in Alabama, Connecticut, Illinois, New Jersey, Puerto Rico, South Carolina and Tennessee. There was no marked decrease evident in any state.

Health Insurance for the Aged

Forty-nine percent of all Americans 65 years of age or older had health insurance protection against the costs of ill health at

the beginning of 1960, the Health Insurance Association of America has reported.

Of the 15.7 million persons in this age group, an estimated 7.7 million had health insurance, the Association said in issuing the first analysis made on a nationwide basis since early 1958 of the extent of health insurance coverage among "senior citizens."

In early 1952, one out of every four senior citizens had health insurance, and now one out of two are so protected. In addition to the 49 percent of the 65-and-over who now have health insurance, the Association said, another 15 percent, or 2.4 million persons are officially classified as indigent and provision is made for their medical needs through Old Age Assistance, supported by Federal-State matching fund programs.

MEDICAL NEWS IN TENNESSEE

Athletic Injury Clinics Conducted

Clinics on athletic injuries, co-sponsored by the Tennessee State Medical Association and the Tennessee Secondary Schools Athletic Association, have been conducted in three major centers of the state. A clinic on athletic injuries was held in Jackson on August 13th, a similar one in Memphis on August 12th, and a third clinic in Knoxville on August 10th.

South Lags in Medical Manpower

The South still lags behind the rest of the nation in medical manpower, the Southern Regional Education Board reports. Figures show that on a national average there are 128.6 doctors per 100,000 people with only one of 16 Southern or part-Southern states above the average. The average figure for the Southern region is 100.5. The Southern Regional Education Board points out the South has made great strides in the past 15 years. The Universities of Florida, Kentucky and Miami have built new medical schools, and the Universities of Mississippi, North Carolina and West Virginia have expanded their two-year medical schools to four-year institutions.

Records show that Mid-South states are gaining. Tennessee has an average of 106.1 or 3,713 doctors, compared with an average

of 104.3 in 1957, 104.1 in 1955 and 95.3 in 1949. None of the figures include doctors employed by the Federal Government.

The study showed that about one half of the Southern states have schools which are now supplying a majority of their practicing physicians. The most reliant states, the report said, are Arkansas, Georgia, Louisiana, Oklahoma, South Carolina, Tennessee and Texas. All have at least 60 percent home state graduates on their list of physicians.

Doctors Study Postgraduate Education Needs

General practitioners from five Southern states met in Nashville on July 17th to discuss their part in a nationwide study of postgraduate educational programs and means of using available physicians more efficiently. The meeting was the first of nine regional meetings of the American Academy of General Practice, whose Board of Directors decided to undertake the studies. Some 30 persons attended the meeting in Nashville at the Mid-State Medical Center. Those attending included officials of the American Academy of General Practice, Chapters in Tennessee, Kentucky, Alabama, Mississippi and Louisiana.

The educational part of the study will include a survey of the needs of physicians for postgraduate study and the best means of accomplishing the study.

Physicians Gather in Oak Ridge for Study of Radioisotopes

Eighteen physicians from throughout the United States gathered recently in Oak Ridge to participate in a seminar in the pre-clinical use of radioisotopes. The study was conducted by the Medical Division of the Oak Ridge Institute of Nuclear Studies.

University of Tennessee College of Medicine

Sixteen members of the faculty of the School of Biological Sciences of the University have been promoted, Dr. Roland H. Alden, acting dean recently announced. The following were promoted in the division of pathology and microbiology: Dr. Anna Dean Dulaney from associate professor to professor; Dr. Sidney A. Coleman from assist-

ant professor to associate professor: Dr. Terry P. Cruthirds, and Dr. Jerry T. Francisco from instructor to assistant professor and Dr. Marvin E. Johnson and Dr. Yoon Chu Kim from assistant to instructor.

Other promotions were announced in the divisions of pharmacology and physiology, as well as the division of anatomy.

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\$36,000 has been awarded for a rehabilitation program for patients suffering from diseases of the heart and blood vessels. Dr. James W. Culbertson, professor of medicine at the University will direct the project. Of the total grants, \$23,000 was contributed by the U. S. Public Health Service; Memphis city hospitals contributed \$10,000 for specialized X-ray equipment, and the Memphis Heart Association gave \$3,000 for social service needed in developing the program.

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The University offered a postgraduate course in emergency surgery for physicians, July 27-29. The program included ward rounds in the John Gaston Hospital, lectures, the medical-legal aspects of injuries, and demonstrations of certain surgical techniques. The course was directed by Dr. Harwell Wilson, professor and chief of the division of surgery.

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Two new \$600 fellowships for medical student research have been established at the Medical Units. The fellowships were awarded by the Lederle Laboratories, Division of the American Cyanamid Company. The awards will be made to students who will devote their full time for one quarter to research in the preclinical departments.

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Attending postgraduate programs at the University of Tennessee Medical Units during the fiscal year ending June 30th were 537 physicians, dentists, and others in allied professions, including 277 from Tennessee. Professional people from 28 other states also attended according to a report from the postgraduate department. Twelve courses were offered physicians, nine were offered dentists and five offered those in the allied professions.

Tennessee Department of Public Health

The following letters have been sent phy-

sicians of the state detailing information concerning assistance provided by the Department in the doctor's practice.

August 1, 1960

Special Letter

To: Licensed Physicians in Tennessee

Subject: Biopsy Service for the Early Diagnosis of Cancer

Dear Doctor:

Attached is a list of the pathologists for the fiscal year 1960-61 who are participating in the biopsy service for the early diagnosis of cancer. This service is limited to the examination of specimens from medically indigent patients.

1. Containers for sending specimens may be obtained on request from:
Division of Laboratories, Tennessee Department of Public Health, Cordell Hull Building, Nashville 3, Tennessee
2. Only biopsy specimens will be examined. Specimens from the breast are an exception. No other post-operative specimens will be examined.
3. Place the biopsy specimen in the fluid in the container. *Do not pour out the fluid.*
4. You will find two copies of Form No. 570 in the container. Fill out completely both copies of the form and sign them. The pathologists have been requested not to accept specimens when the form is not completely filled out in duplicate and signed.
5. Place the completed forms around the inner container.
6. Make sure that the lids are on tight.
7. Address the yellow mailing label to the pathologist of your choice, place on the label your return address, attach the label to the outer container, and mail.
8. *Do not mail the specimens to the State Laboratory.*

If we can be of assistance, please let us know.

Sincerely yours,

R. H. HUTCHESON, M.D.
Commissioner

PATHOLOGISTS PARTICIPATING IN THE BIOPSY SERVICE FOR THE EARLY DIAGNOSIS OF CANCER

ADAMS, John W., Jr., M.D.	GLADDING, Thomas C., M.D.
Erlanger Hospital	Baptist Memorial Hospital
Chattanooga, Tenn.	Memphis, Tenn.
BALE, George F., M.D.	GOTWALD, David K., M.D.
Baptist Memorial Hospital	St. Thomas Hospital
Memphis, Tenn.	Nashville 11, Tenn.
BEALS, Daniel F., M.D.	HARRISON, William, Jr., M.D.
U.T. Memorial Hospital	Holston Valley Community Hosp.
Knoxville, Tenn.	Kingsport, Tenn.
DIGGS, Lemuel W., M.D.	JONES, Chester K., M.D.
42 North Dunlap	Jackson-Madison Co. General Hosp.
Memphis, Tenn.	Jackson, Tenn.
ERICKSON, Cyrus C., M.D.	
Institute of Pathology	
University of Tenn.	
Memphis, Tenn.	

JONES, Francis S., M.D.	SHAPIRO, John L., M.D.
U.T. Memorial Hospital	Vanderbilt Hospital
Knoxville, Tenn.	Nashville, Tenn.
KELMAN, Edward, M.D.	SPRUNT, Douglas H., M.D.
Blount Memorial Hosp.	Institute of Pathology
Maryville, Tenn.	University of Tenn.
KINTNER, Elgin P., M.D.	Memphis, Tenn.
Box 89	STEFFEE, C. Harold, M.D.
Maryville, Tenn.	1265 Union Avenue
LEFFLER, John R., M.D.	Memphis, Tenn.
East Tenn. Baptist Hospital	THOMISON, John B., M.D.
Knoxville, Tenn.	Dept. of Pathology
MAHON, George S., M.D.	Vanderbilt Univ. School of Medicine
St. Mary's Memorial Hospital	Nashville, Tenn.
Knoxville, Tenn.	TRIBBY, William W., M.D.
MONGER, Ralph H., M.D.	1265 Union Avenue
605 Medical Arts Bldg.	Memphis, Tenn.
Knoxville, Tenn.	TRUMBULL, Merlin L., M.D.
MOSS, T. C., M.D.	Baptist Memorial Hospital
257 S. Bellevue	Memphis, Tenn.
Memphis, Tenn.	WOMACK, Frank C., Jr., M.D.
PRIETO, L. C., M.D.	2000 Church Street
St. Joseph Hospital	Nashville, Tenn.
Memphis, Tenn.	
POTTER, Thomas P., Jr., M.D.	
Memorial Hospital, Inc.	
Johnson City, Tenn.	

*Blood Specimens Only



August 1, 1960

Special Letter

To: Doctors of Medicine in Tennessee

Subject: Cancer Diagnostic Clinics

Dear Doctors:

Enclosed herewith is a list of the cooperative cancer clinics in Tennessee. Medically indigent patients may be referred to any one of these clinics. Form No. 576 "Request for Diagnostic Service" should be used in referring patients. Copies of this form may be obtained on request from this office or from the local health departments.

Sincerely yours,

R. H. HUTCHESON, M.D.
Commissioner

COOPERATIVE CANCER CLINICS IN TENNESSEE 1960-61

Memphis

West Tennessee Cancer Clinic
787 Jefferson Avenue
Memphis, Tennessee

*Time: Monday, Tuesday, Thursday, and Friday
Hour: 8:00 a.m.

*Doctors should mail in to the clinic requests for service, thereby establishing definite appointments for the patients.

Nashville

Vanderbilt University Hospital Cancer Clinic
Twenty-First Avenue South
Nashville, Tennessee

Time, Hour and Type:

Monday, 1:00 p.m., Neurosurgery; Tuesday, 1:00 p.m., Hematology; Wednesday, 1:00 p.m., E.N.T.; Thursday, 9:00 a.m., Gynecology, Surgery; Thursday, 1:00 p.m., Chest

Hubbard Hospital Tumor Clinic (Colored)
1005 18th Avenue, North
Nashville, Tennessee
Time: *Monday and Thursday*
Hour: 11:00 a.m.

Nashville General Hospital Tumor Clinic
Hermitage Avenue
Nashville, Tennessee

*Time, Hours and Type:

Tuesday, 1:15 p.m.-6:00 p.m., Surgery; *Friday*, 9:30 a.m.-12:30 p.m., Gynecology

*Patients are seen by appointment only.

Chattanooga

Chattanooga Tumor Clinic
Erlanger Hospital
Chattanooga, Tennessee

Time and Hour:

Tuesday, 12:30 p.m.; *Friday*, 12:30 p.m.

Knoxville

East Tennessee Tumor Clinic
University of Tennessee Memorial Hospital
Time: *Thursday*

Hours: 12:00-3:00 p.m. (Surgical Clinic: 10:00 a.m.-12:00)

Johnson City

Tri-County Cancer Clinic
Health Center
102 West Myrtle
Johnson City, Tennessee
Time: *Thursday*
Hour: 1:00 p.m.

Kingsport

Holston Valley Community Hospital Cancer Clinic
Kingsport, Tennessee
Time: *Friday*
Hour: 12:30 p.m.

Bristol

Bristol Memorial Hospital Cancer Clinic
Bristol, Tennessee
Time: *Friday*
Hour: 1:45 p.m.

Jackson

Jackson-Madison County General Hospital Cancer Clinic
Jackson, Tennessee
Time: *Tuesday*
Hours: 9:00 a.m.-12:00 Noon



August 5, 1960

R. H. Kampmeier, M.D., Editor

Journal of The Tennessee State Medical Association

Vanderbilt Hospital
Nashville, Tennessee

Dear Dr. Kampmeier:

Every possible effort is being made to secure as nearly complete registration of X-ray machines and other sources of radiation as is possible. As a matter of fact we are obligated under the law to secure all registration. I would like to extend through the Journal a plea to the doctors of medicine to help us with this so that it will not be necessary for a visit by an agent of this office to call on the physicians for this purpose, and therefore, will appreciate it if you

Monthly Report

REGISTRATIONS
WITH THE
RADIOLOGICAL HEALTH SERVICE
JULY 31, 1960

Classification	Number in State	Number of Registrations			Number Not Subject to Registration			Total	
	Number in State	Previous	This Month	Total	Previous	This Month	Total	Response	% Response
Hospitals	214	185		185	14		14	199	93%
AEC Licensees	81	77		77	1		1	78	96.3%
Industry	72	28	3	31	22		22	53	73.6%
Chiropodists	36	21		21	11		11	32	89%
M.D.'s	3856	1371	76	1447	1266		1266	2713	70.5%
Dentists	1475	952	88	1040	109		109	1149	78%
Chiropractors	278	99		99	42		42	141	50.7%
Osteopaths	79	19	1	20	30		30	50	63.3%
Veterinarians	151	53	1	54	71		71	125	82.8%
Totals 7/31/60	6242	2805	169	2974	1566		1566	4538	72.8%

X-RAY MACHINES
REGISTERED WITH
RADIOLOGICAL HEALTH SERVICE

	Dental		Medical		Industrial	Veterinary	DC	Shoc Fluoroscope		Total
		Diagnostic	Therapy							
4/5/60										
Previous Report	986	1280	99	66	42	90	23	2586		
This Month	88	75	1	3	1			168		
7/31/60										
Totals	1074	1355	100	69	43	90	23	2754		

will through the columns of the Journal ask each physician who has not completed the form and returned it to us to do this at his earliest opportunity. In order that you can see what the situation is I am enclosing a copy of the monthly report for the Radiological Health Service showing the total response of the different groups.

Yours very truly,
R. H. HUTCHESON, M.D.
Commissioner

PERSONAL NEWS

Dr. Charles M. Cowden, formerly of Nashville, has announced the opening of his office for the practice of medicine in Gallatin.

Dr. J. P. Glover, Ashland City, has been appointed assistant medical director of the National Life & Accident Insurance Company in Nashville. He began his duties on September 1.

Dr. R. H. Kampmeier, Nashville, recently gave the James S. McLester Lecture before the 21st Postgraduate Seminar of the Alabama Academy of General Practice in Mobile.

Dr. Charles L. Frost has announced the opening of his office for the practice of medicine at the Barham Clinic in Bolivar.

Dr. Charles S. Gelbert, Tazewell, has returned from postgraduate study in Paris, France. Dr. Gelbert studied heart disease at the American Hospital.

Dr. S. S. Lambeth, Maryville, was speaker at the recent meeting of the Tennessee Valley Academy of General Practice at Cherokee Country Club in Knoxville. He spoke on "The Use of Hormones in Gynecology."

Dr. Richard C. Crain is the new associate pathologist and director of intern and resident training at the Knoxville Baptist Hospital.

Dr. Alys Harris Lipscomb, Memphis, associate professor at the University of Tennessee College of Medicine, recently spoke before the Civitan Club. His subject was "Radioisotopes in Medicine."

Dr. Charles C. Smeltzer, Knoxville, recently spoke on "Medical Care for the Aged" before the General Agents and Managers Conference of Knoxville Life Underwriters Association.

Dr. Roy W. Money, Pulaski, has accepted a position as plant physician with the Nashville glass plant of Ford Motor Company in Nashville. He assumed his duties on September 1.

Dr. Fred Reed formerly of Hot Springs, Arkansas, has opened his office for the practice of medicine in Tazewell.

Dr. Durwood Kirk, Chattanooga, has joined **Drs. O. B. Murray, Dewitt B. James** and **George E. Beckman** in the practice of urology.

Dr. R. B. T. Sweany has moved from Nashville to Manchester where he will practice mental health.

Dr. Charles W. Fitch has joined the Paris Clinic where he will practice pediatrics.

Dr. Horace B. Cupp, Johnson City, is the new director of the Washington County Health Department.

Dr. William B. Hilbun, formerly of Louisville, has announced the opening of his office for the practice of medicine in Lenoir City.

Dr. Elizabeth M. Lodge, McMinnville, has accepted the appointment as a resident in the Erlanger Hospital in Chattanooga.

Dr. Royce Holsey, Elizabethton, is the new chief of surgery at Carter County Memorial Hospital.

Dr. Lawrence R. Nickell, Chattanooga, has been certified as a diplomate of the American Board of Radiology.

Dr. L. G. Gardner, Jr., Manchester, has joined **Dr. C. S. Young** and **Dr. Harry H. Winters** in the practice of medicine and surgery.

Dr. Joe Campbell, Union City, has announced his association with the Union City Clinic. Dr. Campbell is a native of Greenfield.

Dr. Luther A. Beazley, Jr., Donelson, has been named to the Davidson County Board of Health. He succeeds **Dr. O. N. Bryan**, retired.

Dr. Jean M. Hawkes recently addressed the Memphis Lay Diabetics Association. Dr. Hawkes discussed the latest scientific findings in diabetics.

Dr. Robert B. Clark, III has announced the opening of his office for the practice of pediatrics in association with **Dr. H. D. Long** and **Dr. James H. Spaulding, Jr.** in Chattanooga.

Dr. Jack C. Schmitt, Nashville, has joined **Dr. C. Joseph Ladd** in the practice of oral surgery.

Dr. G. Sydney McClellan, Nashville, announces the removal of his office to 530 Medical Arts Building, for the practice of Obstetrics and Gynecology.

Dr. Orrin L. Jones, Jr. has become associated with **Dr. Charles H. Huddleston** in the practice of Obstetrics and Gynecology at Donelson.

Dr. Armistead Nelson, Nashville, has joined the Burch Clinic with practice limited to general and thoracic surgery.

HISTORICAL NOTES

Dr. Felix Robertson: His Life and Times*

THOMAS S. WEAVER, M.D., Nashville, Tenn.

Mr. retiring president, members of the Board of Directors, and fellow doctors, I am grateful to you for the honor and privilege of serving as president of the Nashville

*Presidential Address, Nashville Academy of Medicine and Davidson County Medical Society, Jan. 12, 1960.

Academy of Medicine and the Davidson County Medical Society.

This evening instead of reviewing the Forand Bill and other equally controversial matters with which you already are familiar I have chosen to review the life and times of one of our pioneer physicians, Dr. Felix Robertson. A few words of explanation are in order. Dr. Robertson was the first white child born in the Cumberland Settlement, as Nashville was then known. During his lifetime, from 1781 until 1865, Nashville grew from a frontier fort in the wilderness to the city which our grandparents could recall. Dr. Robertson helped to found this Society and also our State Medical Association, as I shall relate in greater detail shortly. By looking backward I hope to stimulate some interest in medical history, especially among the newer members of our society.

A brief account of Felix Robertson's parents may be of interest at this point. His father, James Robertson, was born in Brunswick County, Virginia on 28 June 1742 and moved with his parents to Wake County, North Carolina at an early age. He married Charlotte Reeves in 1768. The following year with Daniel Boone, James Robertson explored the Watauga River area near the present Elizabethton, Tennessee, where William Bean had erected a log shelter in 1768, thus establishing the first permanent settlement in what was to become the State of Tennessee. After building himself a cabin James Robertson returned to North Carolina, and in 1770 with his wife led a party of 16 families back to the Watauga area where they settled, to escape British persecution.

Lured westward by the prospect of fertile soil and abundant game, and fearful of attack on the Watauga Settlement by the Cherokee Indians, James Robertson once again determined to be on the move. In 1779 he led a large group of 225 pioneers with their stock, through Cumberland Gap and across southern Kentucky to the upper Cumberland River, and then down the Cumberland to the Middle Tennessee Basin, where they founded a settlement on the river bluffs. Fort Nashboro was the name given the settlement, in honor of the North Carolina patriot Col. Francis Nash, who lost

his life at the battle of Germantown, in the American Revolution.

To avoid the long overland journey to Fort Nashboro, Charlotte Robertson and the four Robertson children traveled by flatboat from Fort Patrick Henry on the Holston River, near the present city of Kingsport. There were some 40 boats in the flotilla, each carrying two or more families with all their possessions, and led by John Donelson. The river party set out in December 1779, and traveled down the Holston and Tennessee Rivers to the Ohio River, up the swollen Ohio by laborious poling to the mouth of the Cumberland River, and up the Cumberland to Fort Nashboro. In spite of a lack of provisions, an uncharted course, and Indian attacks which resulted in the death, wounding or capture of some 30 or more settlers, they reached their destination on 21 April 1780, after a voyage of approximately one thousand miles, covered in a period of four months. John Donelson kept a day by day account of this journey by flat boat, which has been preserved, and is fascinating to read.

Felix Robertson was born 11 January 1781, the sixth child of James and Charlotte Robertson. His birthplace was Freelands Station, which stood where the Werthan Bag Company is now located on 8th Avenue North.

The birth of Felix Robertson occurred at a time when the Cherokee, Creek and Chickasaw Indians were making vigorous efforts to drive the white settlers from the Cumberland Settlements. On the day of his birth three young men were walking from Freelands Station to the Fort on the Bluff near the present Public Square when they were ambushed by Indians near the Sulfur Spring. Two of the men received superficial wounds and escaped while the third, David Hood, was knocked to the ground by the Indian's fire. An Indian brave scalped the half unconscious man and then jumped on his neck to kill him by dislocating his cervical vertebrae. Some hours later friends from the Fort found the helpless Hood and dragged him to Freelands Station. On the following morning James Robertson, who had returned a few hours previously from a journey to a neighboring fort in Kentucky for powder and ball, found Hood still alive

and administered the standard treatment for a scalped person. With a shoemaker's awl he bored multiple small holes through the outer table of the skull, which permitted serum to well up and form granulations to cover the exposed bone before necrosis set in. Hood survived the crude surgery and lived to be an old man. If we can believe contemporary accounts about two years were required for a scalp to heal completely.

On the 15 of January 1781, when Felix Robertson was only 4 days old, a band of Chickasaw Indians made a night attack on Freeland's Station. Fortunately James Robertson was in the Fort at the time, and typical of the man, it was he who first heard the dogs bark and left his bed to investigate. The Indians had already entered the stockade and were attempting silently to steal the horses when Robertson discovered them in the bright moonlight. After rousing the other settlers, he had Mrs. Robertson put the newborn Felix and the other small children under the bed and throw water on the hearth fire which was still blazing. He then opened a port hole and fired on the Indians. The Indians returned the fire and killed two of the settlers before being driven from the enclosure leaving one dead Indian behind. Before retreating the Indians killed the white men's stock and set fire to the fodder which was stored at the Station. On the following morning the women and children were evacuated from Freeland's Station by horse back. Before they reached Fort Nashboro the Indians fired at a distance on the party, which included Mrs. Robertson with Baby Felix in her arms. Fortunately no one was injured by the gunfire, and the Fort was reached in safety.

Throughout the year 1781 Indian attacks became so frequent that no one who ventured out alone to plant corn or hunt game was safe. On April 2nd 21 mounted settlers were lured from Fort Nashboro, and cut off by a band of several hundred Indians. It was on this occasion that Charlotte Robertson turned loose the dogs, which diverted the savages, enabling most of the white men to fight their way back to the Fort on foot. The Indian attacks continued without abatement costing untold lives. Among those killed were two brothers of Felix Robert-

son. During this period the settlers became so discouraged because of the lives lost, the cabins burned and the stock killed that approximately half of the original group of 300 persons who settled Fort Nashboro, migrated northward to Kentucky.

Following the surrender of Cornwallis, the State of North Carolina was able to provide armed escorts for settlers who then came in increasing numbers to the Middle Tennessee area and the Indians were gradually overcome. It was not until 1795, however, when Felix Robertson was 14 years of age that treaties were signed which finally put an end to the hostilities.

The details of Felix Robertson's early education are not recorded. It is likely that he attended Davidson Academy, the first institution of learning in Tennessee, which was founded in 1786, by an act of the North Carolina Legislature, and headed by the Rev. Thomas B. Craighead. The academy was located near the present Spring Hill Cemetery.

One trait which Felix Robertson shared with the other male members of the Robertson clan is worthy of note, and will appeal to many of the present day members of our society. He enjoyed hunting. The day was past when buffalo roamed in great herds but deer and small game were still abundant. Frequently in later years Felix Robertson was to find enjoyment and relaxation in hunting, often with no company but his hounds.

Good hunters are frequently good story tellers and Felix Robertson was no exception. One of his stories concerns his two cousins, John and Thomas Reeves, who, with the aid of their dogs drove a panther into a cave on the Duck River in Hickman County. After the dogs were forced from the cave by the beast, the two boys lighted a torch and crawled into the cave, one holding the torch and the other carrying the single shot rifle. By the light of the torch the boys sighted the panther, and the gun bearer pointed his gun and fired. The concussion extinguished the flame and left the boys and the panther in pitch darkness. The boys felt their way out of the cave, reloaded the gun, relighted the torch and again entered. There lay the panther, killed by the single shot.

In the first group of settlers who founded Fort Nashboro there was neither physician, lawyer nor preacher. Tradition has it the first doctor was a horse doctor. Robertson himself tells us that the first real physician was a colorful individual named James White, who arrived at the Cumberland Settlement in 1784, from North Carolina. Dr. White was trained not only in medicine but also in the professions of law and divinity. Along with his scholarly attainments, Dr. White had a taste for strong drink. On one occasion when intoxicated, he dressed in buckskins, slung a gourd of whiskey under his arm, and insisted that everyone have a drink with him. In Robertson's own words, "when Dr. White was in his sprees, his originality and humor made him the admiration of the vulgar; when sober of the learned and talented."

Perhaps the sober Dr. White had some influence on Felix Robertson's choice of medicine for a career. It is more likely that he was motivated by the urgent need for doctors in the rapidly growing, frontier community.

In the early decades of the 19th century the educated frontier doctors were those who had studied in the office of an established physician, and then attended two courses of lectures usually at the University of Pennsylvania, the University of Maryland, or Transylvania University in Lexington, Kentucky. Many so-called doctors had no formal medical training. Medical licensure was not compulsory in Tennessee until 1889 so anyone regardless of his qualifications, was free to call himself a doctor.

Felix Robertson studied medicine in the offices of Drs. Jack Hays and Thomas A. Claiborne in Nashville, as the town was called after 1784, and then made the long trip to Philadelphia to attend lectures at the University of Pennsylvania. He was awarded his M.D. degree in 1806, at the time when Benjamin Rush was a leading teacher at the University. Without additional preparation he returned to Nashville, then a frontier town with a population of 1000 persons.

Young Dr. Robertson, by now 25 years of age, lost no time in becoming established in practice. Two years later, in 1808, he married Lydia Waters, from Maryland. In the

course of time 5 sons and 3 daughters were born to the couple.

Rheumatism and fevers were the prevailing complaints of the pioneers in the early years of the 19th century. Tuberculosis was almost unknown, or perhaps unrecognized. Small-pox was feared more than any other disease. Though vaccination had been introduced by Dr. Jenner in 1796, the same year Tennessee became a state, it was not yet widely practiced.

Dr. Robertson's chief interest was in the field of the diseases of children. However, it is recorded that he removed a stone from the bladder of a 20 year old man in May 1821. The stone measured 3½ inches in its longest diameter and weighed ½ oz., which made the operation noteworthy.

Dentistry in all its branches also was practiced by Dr. Robertson. In passing we may note that a female dentist, a Mrs. Susanne Dulany of Baltimore, settled in Nashville in 1817 and advertised that she drew teeth with skill and without much pain, made artificial teeth, cleaned teeth, and plugged hollow ones either with gold or lead, to end pain and preserve the teeth.

Tradition has it that Dr. Robertson introduced the use of quinine locally for the treatment of fevers. This is likely, inasmuch as he had the reputation of keeping himself informed of new developments in medicine, at a time when medical journals and medical meetings were scarce or non-existent.

The first recorded medical meeting in Nashville was held on March 5th, 1821 in the log Court House on the Public Square. Dr. Felix Robertson was elected president and James Roan, secretary. The group which included, in addition to Drs. Robertson and Roan, John Waters, Boyd McNairy, A. G. Goodett, R. A. Higginbotham and James Overton, then proceeded to discuss their mutual problems. The question of uniform fees was raised and was settled as follows:

for visit in town	\$ 1.00
for bleeding	1.00
for extracting tooth	1.00
for night visit, double price of day	2.00
for night visit after abed	5.00
cathartics and emetics	.50
for obstetrical care	5.00

consultation	5.00
amputation	
thigh, each	\$50.00
leg	
arm	
vaccination	2.00
for pills, half dozen	1.00

Our present day Medical Society is the direct descendent of this first Nashville Medical Society, though the name has undergone several changes. I am grateful to Dr. Volney Woodring for furnishing me with the account of the first meeting.

The Medical Society of Tennessee, known now as the Tennessee State Medical Association was established by an act of the Tennessee Legislature in January 1830. Preceding the Civil War it met only in Middle Tennessee and was in effect not representative of the entire State. In 1930, "The Centennial History of the Tennessee State Medical Association" was published under the editorship of Philip M. Hamer. I recommend this volume to anyone interested in the history of our State Society.

Dr. Felix Robertson was a charter member of the Medical Society of Tennessee and served on the committee which prepared its first code of medical ethics. He was elected president of the society in 1834 and was twice re-elected, until in 1840 he refused to be a candidate again. Once more in 1853 he was re-elected president for a fourth term of two years. No other man has headed our state medical association for so long a time.

In an age when doctors frequently were active in fields other than medicine, Felix Robertson had an impressive list of extra-medical activities. He served two terms as alderman, in 1810 and 1817. After this apprenticeship he was elected mayor. Dr. Robertson was also a director of the Farmer's and Mechanic's Bank of Nashville (1817-1820). In connection with his civic duties he became a warm friend of Gen. Andrew Jackson and served as one of his medical advisers.

Dr. Robertson also made important contributions to the field of education. In 1809, he was appointed a trustee of Cumberland College, which was the successor to Davidson Academy, and became the University of Nashville in 1824, the year in which Philip

Lindsay of Princeton, New Jersey came to serve as its first president. The University performed useful service and prospered for a period of about 25 years, and then declined as competing colleges sprang up. In 1850, Dr. Robertson was named president of the Board of Trustees of the University of Nashville, which was now in financial difficulties. Dr. Robertson was one of the group of men who aided in the establishment of the medical department of the University of Nashville in 1851. The first faculty included among others Dr. Paul Eve, William K. Bowling, A. H. Buchanan, and William T. Briggs. Perhaps at some future meeting of our society, the accomplishments of these men will receive the attention they deserve. When the American Medical Association, which had been formed in 1847, chose Nashville for its meeting place in 1857 Dr. Robertson was given a life membership. When he appeared on the floor of the meeting there was a spontaneous ovation, and everyone present rose to his feet, to do honor to the father of the medical profession in Nashville.

Fortunately a fellow physician, Dr. Callender, has left us this description of Dr. Robertson: "the citizens will long remember in the street his tall form bent with age and crowned with white and venerable hair, and will miss the simple but genial greeting he so liked to give." Dr. Callender continues, "the mildness and affability of his manners and the genuine sympathy he felt and exhibited for their distress, won strong holds of affection upon his patients and their friends."

Dr. Robertson's bibliography is brief. A half dozen papers have been located which are of little interest today, with the exception of his presidential address in 1853, titled "The Pioneer Physicians of Nashville" from which I have already quoted.

After 40 years of active practice Dr. Robertson was forced to retire because of poor health, though his mind remained active and he retained his interest in his friends and in reading,—chiefly medical literature and accounts of explorations. His last years were saddened by the Civil War which he considered the result of man's greed. Death came on July 10, 1865, in his 84th year.

Dr. Felix Robertson lived a long and use-

ful life. His fine character added distinction to the medical profession. Through his wide interests in civic affairs and because of his understanding of human problems he contributed greatly to the welfare of the community he served with distinction. He was a leader in his profession, a doctor who understood the science of medicine and practiced the art of healing as well. To all of these achievements we must add one final touch of greatness,—he was an outstanding citizen interested in improving the social, cultural and intellectual life of Nashville.

Dr. Felix Robertson, one of the charter members of our organization, through half a century of useful service in relieving human suffering, set an example worthy of our careful study. As members of the Nashville Academy of Medicine we take pride in such a distinguished former member. From him we may gain renewed inspiration to carry on the work he performed so well.

Acknowledgments:

Miss Isabel Howell and Dr. Sam Cowan, Sr. offered encouragement and helpful advice. Dr. Fremont Wirth corrected grammatical errors and revised the closing paragraphs.

Sources

1. The Centennial History of the Tennessee State Medical Association, 1830-1930. Edited by Philip M. Hamer. Published by Tennessee State Medical Association 1930.
2. Crew's History of Nashville, 1890.
3. Clayton's History of Davidson County, 1880.
4. Woodring, T. V., Pioneer Medicine and Early Physicians in Nashville. Privately printed.
5. Matthews, Thomas Edwin, Gen. James Robertson, Parthenon Press, 1934.
6. Felix Robertson-Lyman Draper correspondence, Univ. of Wisconsin Collection. Photostatic copies are on file in the Archives Division, State of Tennessee.
7. Carr, John: Early Times in Middle Tennessee. The Parthenon Press, Nashville. Reprinted in 1958 (first printing 1857).
8. Robertson, Felix: The Pioneer Physician of Nashville, The Southern Journal of the Medical and Physical Sciences, Vol. III, No. III & IV, May and July 1855, p. 227.
9. Callender, John: Nashville Journal of Medicine and Surgery n. s. 1, 1866, p. 210-214.

Dr. Modell is to be congratulated for the monumental effort required to revise his first edition of "Drugs of Choice" in the brief span of two years since the publication of his widely accepted work. The title is somewhat misleading in that the drugs discussed are for the most part not the same dramatic new compounds which are being advertized in two page spreads in the leading medical magazines, cluttering up your daily mail and filling your wastebaskets. Purchasing this book will not give one the latest word on these new drugs because actually there is not sufficient clinical experience to adequately evaluate them. After reconciling oneself to the fact that one may have to read about "last year's drug" one can relax and appreciate the sound advice offered through the accumulated experience of forty-seven authorities writing in their own specialized field of interest. In discussing the dilemma of modern day physicians in choosing from a bewildering array of highly touted drugs Dr. Modell states, "Yet there is almost nowhere for the physician to turn for the kind of help he needs; certainly no place where unbiased, authoritative, and definitive information bearing on this problem is brought together and made easily available. This volume is designed to satisfy this need by bringing together knowledge which is presently spread through the various specialties and, if published at all, published separately."

The new second edition contains a revision of a large portion of the previous chapters plus eight new ones. The drug index has been placed in one section, arranged alphabetically, instead of being separated into chapters. Each chapter of the book is more or less divided into an introduction, discussion of physiology, general pharmacology, and specific drugs pertaining to each category. Clinical application, choice of drugs, and summary of therapeutics follows. The discussion is usually concluded by a brief mention of new drugs and what improvements need to be made. An excellent list of references is found at the end of each discussion. There is a certain amount of variation in the readability of one chapter compared with another due to the difference in writing style and the complexity of the problem to be considered. Some of the chapters are short, readable, and hold the interest all the way, with little more than an expanded opinion of the author being presented. Other sections are heavy, detailed and involved more effort both in preparation by the author and assimilation by the reader. This volume probably should be placed in the category of a reference book.

There are certain criticisms which may be made, none of them very serious. In the first place this book is not complete. In some chapters the organization of material could be improved. A few discussions are too brief, substituting opinion for detailed discussion of drug action, advantages of each drug and clinical results which brought about this opinion. In other words personal experience is relied on heavily and the reader simply must

BOOK REVIEW

MODELL: DRUGS OF CHOICE 1960-1961, Second Edition. 958 pages; 1960. The C. V. Mosby Co., St. Louis. Price \$13.50.

trust the author. A rare drug is passed over superficially as though the author had little experience with it himself. Dosage is mentioned but in some chapters details of administration are not stressed. A striking contrast between the excellent pharmacology presented in most of the book and an occasional chapter weak on this aspect of drug therapy will be noticed by the careful reader. A very useful feature of the book is the final summary of each chapter where preference is emphasized. Lest this review be misinterpreted, let me hasten to recommend this book highly as being one of the very best in its field. After referring to this volume the reader will soon see that there is no perfect answer to the mushrooming list of drugs which daily confuses and frustrates the conscientious physician. "Drugs of Choice" is probably the best we can do under the circumstances.

Medical, Surgical and Gynecological Complications of Pregnancy by the Staff of the Mount Sinai Hospital; Edited by Allan F. Guttmacher and Joseph J. Rovinsky. The Williams and Wilkins Co., Baltimore, 1960, 619 pages. Price \$16.50.

Until publication of this book a hiatus had existed between the Art of obstetrics and advances in the medical and surgical diseases of patients who happen to be pregnant. Many internists in the past have shied-away from, or blindly blundered into such unpredictable situations as the young gravida with severe diabetes or the management of the expectant mother with aortic stenosis who complained of syncope. Are Mrs. Jones' leg cramps actually thrombophlebitis, and if so should she be given anticoagulants? Should the woman with multiple sclerosis be sterilized? What are the chances of your patient with cleft palate having a child with this defect? Despite the fact that the seriously ill parturient is an object to cause the most fearless clinician to take pause, there are fortunately some physicians who have grasped these problems directly and collectively have come up with satisfactory techniques of management. Guttmacher and Rovinsky at the Mount Sinai Hospital of New York City have apparently found such a group of physicians and logically organized the antepartum clinics so as to correlate information. To quote their preface, "Believing in the existence of an exceptional interplay of medicine and surgery with obstetrics, the Mt. Sinai Hospital departed from the usual pattern of organization when it opened its first department of obstetrics in November 1952. It created ten specialty clinics within the framework of the Department of Obstetrics: Cardiac, Pulmonary, Hypertensive-Renal, Diabetic, Hematologic, Neurologic, Psychosomatic, Obstetrical-Gynecological Endocrine, Vaginitis, and Varicose Vein." The product of this conception is appropriately titled. It should be pointed out that this volume is intended as a supplement to standard obstetric texts. For the internist or surgeon who is asked to consult, all the presently available information on

pertinent diseases is conveniently summarized in a well-written, concise, and authoritative manner by men who are well-known specialists in each field. Treatment is emphasized. The chapter on genetic considerations will be especially welcomed by the obstetrician. Since this book is a pioneer in its field it is natural that certain minor defects are present, in this reviewer's opinion. It is disappointing to observe how an occasional interesting and significant topic is passed over superficially in general terms. In places chronic, infrequent and unresponsive diseases are given more than adequate space, explained perhaps by the personal interest and reputation of the individual author contributing to the book. Discussion of certain purely obstetrical-gynecological disorders are perhaps superfluous since that information can be found in standard obstetric texts. These faults are minor when the value and importance of such a reference book is considered. It will be interesting to follow the future editions of this fine book and watch it grow in thickness as more is learned about the effect of diseases on pregnancy and the pregnancy on diseases, and grow in stature as more and more physicians add this volume to their personal library.

ANNOUNCEMENTS

Tennessee Valley Medical Assembly

The Eighth Annual Session of the Tennessee Valley Medical Assembly will again bring to Chattanooga, men of national and international standing in their respective fields in medicine. The Assembly will be conducted at the Read House September 26-27. Two men are making second appearances this year. They are Dr. John R. Heller, Director of the National Cancer Institute and Dr. Robert Greenblatt, Augusta, Georgia physician.

One of the nation's outstanding authorities in the field of endocrinology and metabolism, Dr. Edward H. Rynearson, will deliver the first paper. His subject will be "Learning to Like the Patient with a Functional Disease." Others who will present papers before the Assembly are:

- Dr. Benjamin Felson, Cincinnati—"Some Fundamentals of Chest Roentgen Diagnosis"
- Dr. Edgar L. Frazell, New York—"The Role of Surgery in the Treatment of Cancer of the Head and Neck"
- Dr. Irving H. Leopold, Philadelphia—"Ocular Reflections of Systemic Disease"
- Dr. Bentley P. Colcock, Boston—"Problems in Gallbladder and Bile Duct Surgery"
- Dr. Arthur P. Stout, New York—"The Effects of Cigarette Smoking on Tracheobronchial Tree"
- Dr. Austin T. Moore, Columbia, S. C.—"Self-Locking Vitallium Hip Prosthesis"
- Dr. Willoughby Kittredge, Jr., New Orleans—"Congenital Obstructive Uropathies in Children"
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 Dr. Alexander J. Steigman, Louisville—"The Common Anemias of Infancy"
 Dr. Robert Greenblatt, Augusta, Georgia—"Infertility"
 Dr. John R. Heller, New York—"Progress in Cancer Research and Control"
 Dr. Fount Richardson, Fayetteville, Arkansas—"The Training of the General Practitioner"
 Dr. Richard L. Sutton, Jr., Kansas City, Mo.—"Acne"
 Dr. Gordon McHardy, New Orleans—"The Present Status of Diverticulosis and Diverticulitis"

The meeting is sponsored by the Chattanooga-Hamilton County Medical Society. Officers of the Society are the ex-officio members of the program committee. They are: Drs. George K. Henshall, Augustus McCravey and Charles W. Hawkins. Other committee members are: Drs. Stewart H. Auerbach, George E. Bechmann, Jr., John M. Crowell, Robert G. Demos, Guy M. Francis, Wayne Gilley, Frank B. Graham, Carl A. Hartung, Edward G. Johnson, M. F. Langston, W. B. MacGuire, W. Houston Price, E. E. Reisman, Jr., Eugene Ryan, Richard Stapuenback, Harold J. Starr, Willard Steele, Jr., Robert C. Thompson, and George G. Young.

Regional Conference on Rural Health

This is your invitation to attend the First Regional Conference on Rural Health for the Southeastern States to be conducted at the Dinkler Plaza Hotel, Atlanta, Georgia, October 7-8, 1960. This program will be presented in cooperation with State Agricultural Extension Services, Farm Bureaus, Health Departments, Medical Societies and Allied Organizations.

American College of Chest Physicians

The Southern Chapter of the American College of Chest Physicians will hold its 17th Annual Meeting at the Statler-Hilton Hotel, St. Louis, Missouri, October 30-31, 1960. All physicians are cordially invited to attend. There is no registration fee.

AMA Industrial Health Congress

The 20th Annual Congress on Industrial Health will meet in Charlotte, North Carolina, October 10-12, 1960, sponsored by the Council on Occupational Health of the American Medical Association. Southeastern physicians are particularly invited to attend. The program will include formal presentations and panel discussions including occupational health in agriculture, mental and emotional health in industry, problems in dermatitis in farm and industry, and occupational health problems in small employee groups. Designed to

be of particular interest to the GP, the program is approved for Category II credit, AAGP.

Southern Medical Association Section on Ophthalmology and Otolaryngology

The Section of Ophthalmology and Otolaryngology of the Southern Medical Association announces a most outstanding program for its annual meeting in St. Louis, Missouri, October 31 to November 3, 1960. The program begins on October 31st with a live color television program on "Preventive and Curative Treatment of Retinal Detachment" by Paul A. Cibis, M.D., Associate Professor of Clinical Ophthalmology, Washington University School of Medicine, St. Louis.

For further information contact the Secretary, Dr. A. C. Esposito, Suite 1212, First Huntington National Bank Building, Huntington 1, West Virginia.

Seminar on Kidney Disease

The Southeastern Region of the College of American Pathologists and the Virginia Society of Pathologists will hold a joint meeting at the John Marshall Hotel Richmond, Virginia, on November 25 and 26, 1960, on kidney disease. The speakers will include Drs. Stanley M. Kurtz, Peter P. Ladewig, Henry D. McIntosh, George Margolis, Conrad L. Pirani, David E. Smith, and Max Wachstein. The slide seminar will be conducted by Drs. Paul Kimmelstiel and Solomon Papper. The dinner speaker will be Dr. Frank C. Coleman, president of the College of American Pathologists.

Southeastern Allergy Association

The Southeastern Allergy Association will hold its annual meeting at the Atlanta Biltmore Hotel, Atlanta, Georgia, October 21-22, 1960. Dr. Susan Dees, Duke Medical College, Durham, N. C., is in charge of the program. Every physician interested in allergy is invited.

Postgraduate Courses on Diseases of the Chest

Two postgraduate courses on diseases of the chest have been announced by Dr. J. Winthrop Peabody, Sr., Washington, D. C., Chairman of the Council on Postgraduate Medical Education of the American College of Chest Physicians. The first of these will be conducted at the Sheraton Towers Hotel, Chicago, October 24-28, 1960. The second, "Recent Advances in the Diagnosis and Treatment of Diseases of the Heart and Lungs" will be conducted November 14-18, 1960. This course will take place at the Park Sheraton Hotel, New York City.

Physicians Recently Licensed to Practice Medicine in Tennessee

Shillig, Stephen, Nashville
 Bronson, Sylvester M., Atlanta, Ga.
 Hyman, Maurice, Nashville

Bouldin, Mary E. S., Clarksdale, Miss.
 Seaton, Robert W., Roanoke, Va.
 Davis, John W., Memphis
 Smiley, Francis J., Chattanooga
 Sacks, Norman J., St. Paul, Minn.
 Dalmain, Walter A., Bristol, Conn.
 Bain, Robert S., Watertown
 Crain, Richard C., Knoxville

Twelfth Annual Scientific Assembly Tennessee Academy of General Practice

The Twelfth Annual Scientific Assembly of TAGP will convene in the Hermitage Hotel in Nashville on October 26-28, 1960. Dr. John T. Carter, Jr., is Chairman of the Committee on Annual Assembly Arrangements. In addition, the Congress of Delegates will meet on October 26 and 28. The two-day scientific program will be presented Thursday, October 27, and Friday, October 28. The program to be presented is as follows:

- "Office Management of Minor Fractures"—Dr. Moore Moore, Jr., Memphis
- "Evaluation and Treatment of Low Back Pain"—Dr. George K. Carpenter, Nashville
- "Newer Anti-Hypertensive Drugs and Their Use"—Dr. Fred Goldner, Nashville
- "The Acute Abdomen"—Dr. Harwell Wilson, Memphis
- "Office Gynecology"—Dr. Robert M. Ruch, Memphis
- "Diagnosis and Treatment of Pelvic Tumors"—Dr. Robert L. Chalfant, Nashville
- "Endocrine Disturbances as a Cause of Sterility"—Dr. D. Scott Bayer, Nashville
- "Office Approach to Sterility Problems"—Dr. James B. Millis, Nashville
- "Medical Aspects of Space Operations—Bio-Astronautic Flights"—Col. Harry McClain, Redstone Arsenal, Huntsville, Alabama
- "Medical Aspects of Space Operations—Some Occupational Health Aspects"—Dr. Burton S. Shook, Sr., Redstone Arsenal, Huntsville, Alabama
- "Office Dermatology—Diagnosis and Treatment of Eczema"—Dr. Robert N. Buchanan, Jr., Nashville
- "Office Care of the Eye, Ear, Nose and Throat"—Dr. Herbert Duncan, Nashville
- "Office Urology"—Dr. Oscar W. Carter, Nashville
- "The Future of the General Practitioner" (Speaker to be announced)
- "Follow-up Care of the Diabetic Patient"—Dr. Albert Weinstein, Nashville
- "Advantages and Hazards of Prolonged Anti-Coagulant Therapy"—Dr. Ralph M. Denham, Louisville, Kentucky
- "Examination of the Unconscious Patient"—Dr. Arnold M. Meirowsky, Nashville
- "Management of the Unconscious Patient"—Drs. Denham, Meirowsky, Weinstein

Postgraduate Seminar Cruise

The Duke University Medical School is sponsoring a postgraduate Medical Seminar Cruise to the West Indies this fall aboard the new KUNGS-HOLM, Sweden's largest transatlantic liner and cruise ship. The luxury ship, which will sail from New York City on November 9, will visit the Virgin Islands and San Juan, Puerto Rico, and will return to New York on November 18.

Shipboard lectures on various subjects in medicine, pediatrics and surgery will be given by the following members of the Duke Medical School faculty: Dr. Edwin P. Alyea, Professor of Urology; Dr. Doris Ahlee Howell, Associate Professor of Pediatrics and Pediatric Hematologist; Dr. Elbert L. Persons, Professor of Medicine; Dr. William M. Shingleton, Professor of Surgery; and Dr. William M. Nicholson, Professor of Medicine and Assistant Dean for Post Graduate Medical Education.

The instructional program will provide twenty hours credit toward postgraduate requirements of the American Academy of General Practice. While designed primarily for the generalist, the program should be of interest and value to the specialist. Informal panel discussions, clinicopathological conferences and formal presentations will be given by members of the faculty.

Postgraduate Course in Anesthesiology

A one-day course in Anesthesiology is offered by the Tennessee Society of Anesthesiologist in conjunction with the Vanderbilt University School of Medicine on October 14. In view of the increasing number of patients having cardiac disease coming to operation, anesthesiologists must be aware of the current concepts regarding disease of the cardiovascular system and the effects of anesthesia on this system. This course is to provide such an opportunity. The course is approved for 7 hours of Category I credit by the American Academy of General Practice. Tuition is \$15.00 which includes the luncheon. For further information address the Department of Postgraduate Instruction, Vanderbilt University School of Medicine.

Southern Society of Pediatric Research

The organizational and scientific meeting of the Southern Society for Pediatric Research will be held on October 29 and 30, 1960, at Vanderbilt University School of Medicine. The aims of the new organization will be to promote basic and clinical research oriented toward the field of pediatrics in the southern region and to serve as a forum for those interested in pediatric education. The meeting will be open. Full and part time members of Pediatric departments, practitioners and residents are invited. The membership will probably be elective. The deadline for submission of abstracts is October 1. Correspondence should be directed to Dr. Mildred Stahlman, Department of Pediatrics, Vanderbilt University School of Medicine.

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A 33 year old married physician. Presbyterian. Graduate University of Madrid, Spain. Board eligible in neurosurgery. Desires associate or assistant practice in neurosurgery in Tennessee community of 100,000. Available immediately. LW-342

A 31 year old married physician. Methodist. Graduate University of Maryland. Desires associate practice in Ob-gyn in east Tennessee community. Will consider clinical practice. Available, spring of 1961. LW-349

A 38 year old married physician. Methodist. Graduate Vanderbilt University. Desires assistant, associate or clinical practice in ob-gyn in east or middle Tennessee community of 30,000-150,000. Available immediately. LW-346

A 31 year old married physician. Methodist. Graduate University of Maryland. Desires associate practice in ob-gyn in east Tennessee community of 20,000-50,000. Available spring of 1961. LW-349

Two general practitioners, ages 24 and 27, married. Graduates of University of Tennessee. Desire to establish a joint practice in medium size community in Tennessee, large enough to accommodate two physicians and which is accessible to a hospital. Available October 1960. LW-362

A 28 year old married physician. Presbyterian. Graduate University of Tennessee. Desires clinical, assistant or associate general practice location in Tennessee community of 5,000 or more. Available immediately. LW-370

A 26 year old married physician. Lutheran. Graduate Medical College of Virginia. Desires clinical or group-type general practice in east Tennessee community of 5,000-25,000. Available immediately. LW-368

A 37 year old married physician. Methodist. Graduate University of Tennessee. Desires private practice in general surgery in Tennessee community of 20,000-50,000. Available immediately. LW-373

A 49 year old married physician. Episcopalian. Graduate University of Illinois. Desires private practice in psychiatry in Tennessee community of 10,000 or over. Available immediately. LW-377

A 49 year old married physician. Baptist. Graduate Vanderbilt School of Medicine. Now in general practice/surgery. Desires position as hospital

administrator, director of professional education in hospital, administrative director in industry or insurance. Prefer location in or near large city but will locate elsewhere. Available immediately. LW-379

Physicians Wanted

Physician in middle Tennessee town of 200,000 desires an associate general practitioner. Office space and equipment available. PW-130

Small central Tennessee community of 1,000 desires general practitioner. No other physician located in community. Fully equipped six room clinic available. Two hospitals totaling 75 beds located 14 miles away. PW-133

West Tennessee town of 500,000 in need of an eye, ear, nose and throat specialist. Office and equipment already set up in choice location in downtown office building. For sale on reasonable terms because of death. PW-135

Middle Tennessee community of 8,000 in need of a physician in the field of internal medicine. Must have two years internship and one year residency training. Office space located near newly built hospital. PW-136

A small rural middle Tennessee community of 200 in need of general practitioner to replace physician leaving community. Office space and hospital privileges available nearby. Near good hunting and fishing area. PW-139

Physician in middle Tennessee town of 200,000 desires associate or independent internist or GP. Office space and equipment provided. PW-146

Physician in west Tennessee town of 500,000 desires an associate GP. Completely furnished office available. PW-148

East Tennessee community of 1,000 desires general practitioner. One other doctor in community. Office space and equipment will be provided to suit physician. 40-bed hospital located in community. Good location. PW-149

Internist in large western Tennessee city desires associate. Modern air conditioned office. Complete diagnostic equipment. Adequate technical help. PW-150

Otolaryngologist or ear, eye, nose and throat physician to purchase practice after brief association. Present owner reentering government service during 1961. Minimum amount of cash required of right party. PW-152

For immediate occupancy; office in choice location of large west Tennessee city. Completely equipped with diagnostic equipment, including X-Ray department. Attractively and completely furnished, less than six months old. Adequate free parking for staff and patients. PW-153

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The factors which play a part in apnea of the new born are several. To keep these in mind is essential for the doctor in attendance upon the delivery.

Apnea Neonatorum: An Obstetrical Evaluation*

HARRY PRYSTOWSKY, M.D.,† Gainesville, Fla., and
TODD M. FRAZIER, Sc.M.,‡ Baltimore, Md.

It is the purpose of this presentation to report the breathing times in 7,966 live births. In so doing, it is our intention to explore whatever correlations may exist between breathing times and various clinical phenomena in order to elucidate, if possible, the main causes of apnea neonatorum; and finally we hope to draw certain inferences in regard to the bearing of delayed respiration on subsequent survival. By "breathing time" is meant the interval between birth and the onset of rhythmic respiration.

Analysis of Observations

If the breathing times of the 7,966 infants are divided into five arbitrarily demarcated groups, as indicated in table 1, it will be

Table 1

DISTRIBUTION OF SINGLE LIVE BIRTHS, 1,000 GM. OR MORE ACCORDING TO BREATHING TIME (TOTAL SERIES)

Breathing Time Classification	Number	Per cent
IMMEDIATE—		
Immediate to 5 seconds	5,826	73.1
SLOW—I—6 to 29 seconds	1,001	12.6
SLOW—II—30 to 59 seconds	649	8.2
SLOW—III—60 to 119 seconds	328	4.1
APNEIC—120 seconds or more	162	2.0
TOTAL—All Deliveries	7,966	100.0

seen that approximately three-fourths of the babies breathed immediately or almost so, whereas in 2% the onset of rhythmic

respiration was delayed for two minutes or more. For the purpose of this report a delay in the onset of respiration for two minutes or more has been regarded as "apnea," and this category is called the "apnea group." Between the immediate breathers and the apneic category, a large intermediate group of "slow breathers" made up about one-quarter the entire series.

Although table 1 may suggest that considerable precision has been possible in the classification of these several groups, this is by no means the case. Indeed it is realized that the number of infants placed in the several categories are approximations only; and it is probable that many of the infants, if the truth were known, actually belonged to an adjacent group. Nevertheless, the following circumstances suggest that the grouping of the cases as a whole is sufficiently correct to warrant analysis.

1. In the study of breathing times carried out in this same clinic in which specially trained nurse-technicians recorded the breathing time of each infant with meticulous care, the figures were about the same as those reported here, that is, a 5% incidence of one minute breathers as compared to our figure of 6.1 per cent.

2. The frequency with which artificial respiration was necessary in the five groups correlates very well with the breathing times as recorded; thus, it was thought necessary to institute artificial respiration in over 75% of the apneic group and never in the immediate breathers for the purpose of initiating respiration.

3. As the study proceeds the intermediate group will be dropped from consideration

*Read at the meeting of the Tennessee State Medical Association, April 12, 1960, Nashville, Tenn.

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‡From the Bureau of Biostatistics, Baltimore City Health Department, Baltimore, Maryland.

and attention directed only to the immediate breathers and the apneic group. There can be little doubt but that these two categories do represent separate and distinct entities.

Although the 2% incidence of apnea in the entire series is worthy of note, any intelligent analysis of the problem necessitates breaking down the total number of cases into appropriate groups. For example, it is well known that the respiratory behavior of the newborn differs decidedly in babies born vaginally and those delivered by cesarean section. This fact is well demonstrated in table 2 where it may be seen

Table 2

DISTRIBUTION OF SINGLE LIVE BIRTHS, 1,000 GM. OR MORE, ACCORDING TO BREATHING TIME AND TYPE OF DELIVERY (TOTAL SERIES)

Type of Delivery Number of Cases	Immediate Per Cent	Slow Per cent	Apneic Per cent
Vaginal Delivery (7,527)	74.4 (a)	24.0 (b)	1.6 (c)
Cesarean Section (439)	52.4 (0.7a)	38.7 (1.6b)	8.9 (5.6c)

that the frequency of apnea following vaginal delivery was 1.6%, but 8.9% after cesarean section. Despite much speculation the reason for this pronounced difference is not clear. In any event, it is evident that it will be necessary in this analysis to differentiate the vaginal series from the cesarean section series, and in the next series of tables attention will be limited to the vaginal cases. Respiratory behavior after cesarean section will be presented later in the report.

In table 3 is shown the effect of certain

Table 3

DISTRIBUTION OF SINGLE LIVE BIRTHS, 1,000 GM. OR MORE, ACCORDING TO BREATHING TIME AND COMPLICATIONS OF LABOR (GROUPED), VAGINAL DELIVERIES ONLY

No. listed	No. of Cases	Im- mediate Per cent	Slow Per cent	Ap- neic Per cent
complications*	6,401	76.1	22.8	1.1
Complications*	1,127	64.2	31.1	4.6
Total Vaginal Series	7,528	74.4	24.0	1.6

*The complications included are uterine inertia, intrapartum infection, prolapse of cord, anesthesia accidents, abruptio, placenta previa, marginal sinus rupture, other hemorrhage, and fetal distress. Malpresentations are not listed here for reason stated in text.

complications of labor, considered here as a group, on breathing time. Malpresentations are not included in the list of complications enumerated because they have no

effect *per se* on breathing time, since it is the operative procedure necessary for the delivery of infants in malpresentation which is the determining factor in delayed respiration. For instance, infants born spontaneously in the occiput posterior position, breathing time is the same as in spontaneously born occiput anterior position; but if manual or forceps rotation followed by forceps delivery is employed the onset of respiration will, on the average, be delayed in proportion to the difficulty of the operative procedure and the type and duration of the anesthesia. The same line of reasoning applies to spontaneously born breech deliveries, uncommon though such cases may be. When none of the complications listed is present, the frequency of apnea falls to 1.1%, but in the presence of these complications it is four and a half times more frequent or 4.6%. Since these complications are one of several possible causes of apnea neonatorum, as subsequent tables will show, it is appropriate that they be considered in detail. This is done in table 4 where the

Table 4

DISTRIBUTION OF SINGLE LIVE BIRTHS, 1,000 GM. OR MORE, ACCORDING TO BREATHING TIME AND SPECIFIC COMPLICATIONS OF LABOR, VAGINAL DELIVERIES ONLY. (FIGURES IN BRACKETS REPRESENT NUMBER OF CASES.)

Complications	No. of Cases	Im- mediate Per cent	Slow Per cent	Apneic Per cent
No complications	6,400	76.1	22.8	1.1
Uterine inertia	164	56.7 (93)	38.4 (63)	4.9 (8)
Intrapartum infection	77	57.1 (44)	35.1 (27)	7.8 (6)
Prolapse of cord	39	38.5 (15)	41.0 (16)	20.5 (8)
Anesthesia accidents	72	66.7 (48)	27.8 (20)	5.6 (4)
Placenta Previa; Abruptio; Marginal sinus rupture	157	60.5 (95)	35.0 (55)	4.5 (7)
Other hemorrhage	465	74.2 (345)	23.2 (108)	2.6 (12)
Fetal distress	267	48.3 (129)	43.8 (117)	7.9 (21)

incidence of apnea in the several complications is set forth. Although it might be thought that the operative manipulations and anesthesia required in the management of these complications may be important contributory causative factors in the high rate of delayed respiration as shown in table 4, a more extended analysis of these latter factors indicate that, while they have a distinct inhibitory influence on respira-

tion, they are actually less important than the complications themselves.

The significant role of the listed complications of labor, even in the absence of operative procedures, and apnea neonatorum is demonstrated in table 5. Here it may be seen that in deliveries in which neither labor complications nor operations were present, the incidence of apnea assumes, what we might call, a "basic figure," namely, 0.8 per cent. But if complications of labor are superimposed without any operative manipulations whatsoever, the figure rises to 3.6 per cent. On the other hand, in the group of women who had operative procedures for vaginal delivery, in the absence of these labor complications, the apneic rate increased to only 1.9 per cent. The great majority of these latter cases were instances of low forceps delivery. When both labor complications, and operations are present, the incidence of delayed respiration rises to 6.1 per cent. It will be noted that this is somewhat higher than the additive effect of operations alone and complications of labor alone. The right hand side of table 4 shows that, in general, the frequency of delayed respiration is greater in the premature babies than in mature. The only exception is in the "No labor complications, operations," mostly in low forceps cases, in which the incidence of apnea is the same in both weight groups.

Table 6 shows the incidence of delayed respiration according to the anesthetic agent employed, both in cases with and without complications of labor. It would appear from these data that the only anesthetic agent which is regularly associated with a delay in the onset of respiration is gas-oxygen-ether. Both in the absence and in

the presence of complications of labor, deliveries with gas-oxygen-ether anesthesia had a two-fold increase in the frequency of apnea. The clinical significance of this effect of gas-oxygen-ether anesthesia will be discussed in a subsequent section of the report.

An attempt has been made in table 7 to analyze the separate effects of labor com-

Table 6

INCIDENCE OF APNEA NEONATORUM ACCORDING TO LABOR COMPLICATIONS AND ANESTHESIA SINGLE LIVE BIRTHS, 1,000 GM. OR MORE, 7,528 VAGINAL DELIVERIES

	Type of Anesthesia	De-livered	Apneic	Per cent Apneic
All Deliveries		7,528	123	1.6
All No Complication of Labor	All	6,401	71	1.1
	None	992	10	1.0
	GOE ¹	1,582	29	1.8
	Other Gen. ²	2,368	18	0.8
	Local et al. ³	1,305	12	0.9
All Complication of Labor	Other Reg. ⁴	154	2	1.3
	All	1,127	52	4.6
	None	229	8	3.5
	GOE	247	24	9.7
	Other Gen.	318	12	3.8
All Complication of Labor	Local et al.	298	8	2.7
	Other Reg.	35	—	—

¹ Gas, oxygen, ether

² Other General includes gas, oxygen, intravenous, other, failed conduction followed by other

³ Local et al. includes local only, local followed by intravenous, local followed by inhalation

⁴ Other Regional includes caudal or peridural, single shot spinal or saddle, continuous spinal

Table 7

INCIDENCE OF APNEA NEONATORUM ACCORDING TO LABOR COMPLICATIONS, GOE ANESTHESIA AND BIRTH WEIGHT SINGLE LIVE BIRTHS, VAGINAL DELIVERY

	Labor Complications	GOE Anesthesia	Birth Weight Less than 2,500 gms.	Incidence of Apnea (%)
1.	No	No	No	0.8
2.	No	Yes	No	1.8
3.	Yes	No	No	2.4
4.	Yes	Yes	No	9.1
5.	No	No	Yes	1.5
6.	No	Yes	Yes	3.1
7.	Yes	No	Yes	5.9
8.	Yes	Yes	Yes	14.3

Table 5

INCIDENCE OF APNEA NEONATORUM ACCORDING TO LABOR COMPLICATIONS, OPERATIONS AND BIRTH WEIGHT 7,528 VAGINAL DELIVERIES

Deliveries with	All Deliveries		Birth Weight 2,500 Gm. or more		Birth Weight 1,000-2,500 Gm.	
	Number	Per cent Apneic	Number	Per cent Apneic	Number	Per cent Apneic
All deliveries	7,528	1.6	6,847	1.5	681	3.4
No labor complications, no operation	4,542	0.8	4,183	0.7	359	1.7
No labor complications, operations	1,859	1.9	1,751	1.9	108	1.9
Labor complications, no operation	686	3.6	551	3.3	135	5.2
Labor complications, operations	441	6.1	362	5.2	79	10.1

plications, gas-oxygen-ether anesthesia and maturity of the infant on the incidence of apnea neonatorum. This summarizes the findings presented in the previous few tables in showing additive effect of labor complications, gas-oxygen-ether anesthesia and birth weight in delaying respiration.

Turning now to the group of cases delivered by cesarean section and applying to them the statistical methods used in the

Table 8

INCIDENCE OF APNEA NEONATORUM ACCORDING TO LABOR COMPLICATIONS, GOE ANESTHESIA AND BIRTH WEIGHT MORE THAN 2,500 GM., SINGLE LIVE BIRTHS, CESAREAN SECTION

Labor Complications	GOE Anesthesia	Incidence of Apnea (%)
1. No	No	3.0
2. No	Yes	20.0
3. Yes	No	5.0
4. Yes	Yes	38.2

analysis of the vaginal deliveries, it will be seen in table 8 that when gas-oxygen-ether anesthesia is used for abdominal delivery there is almost a seven-fold increase in the incidence of apnea, the figure rising from 3% in cases without labor complications and without gas-oxygen-ether anesthesia to 20% in cases without labor complications but with gas-oxygen-ether anesthesia. When both labor complications and gas-oxygen-ether anesthesia are present, the incidence of delayed respiration rises to 38.2 per cent. This is in keeping with general clinical experience.

Table 9 shows the same data as table 8

Table 9

INCIDENCE OF APNEA NEONATORUM ACCORDING TO LABOR COMPLICATIONS, GOE ANESTHESIA AND BIRTH WEIGHT LESS THAN 2,500 GM., SINGLE LIVE BIRTHS, CESAREAN SECTION

Labor Complications	GOE Anesthesia	Incidence of Apnea (%)
1. No	No	4.0
2. No	Yes	19.6
3. Yes	No	4.8
4. Yes	Yes	36.8

but for premature babies. It is evident that the figures for tables 8 and 9 are quite similar.

Having discussed some of the possible etiologic factors concerned in apnea neonatorum it becomes important to analyze the prognostic significance of this phenomenon. Table 10 shows clearly that apnea of

Table 10

NEONATAL MORTALITY ACCORDING TO BREATHING TIME 7,966 LIVE BIRTHS OVER 1,000 GM.

Breathing Time	Cases	Deaths	Per cent
Immediate	5,826	61	1.0
Slow	1,978	56	2.8
Apneic	162	23*	14.2
Total Series	7,966	140	1.8

*Only three infants failed to breathe at all.

two minutes or more is of grave significance since the subsequent mortality in this group was 14.2 per cent. Perhaps the most noteworthy figure in this table, and one of the most surprising findings in the entire study, was that in this entire series of 7,966 live births it was possible to establish respiration in all but three infants. In other words, only three infants failed to breathe at all. This shows that if the heart is beating in a newborn it is almost always possible to establish respiration, albeit respiration of sorts.

As shown in previous tables, gas-oxygen-ether anesthesia was associated with delayed respiration more frequently than any other anesthetic agent. But what is the significance in regard to apnea neonatorum produced by gas-oxygen-ether anesthesia in respect to fetal survival? Does it carry with it the same prognosis as apnea neonatorum produced by labor complications and operations in general? Table 11 and

Table 11

NEONATAL MORTALITY AMONG APNEIC INFANTS DELIVERED VAGINALLY ACCORDING TO TYPE OF ANESTHESIA

Type of Anesthesia	Number of Apneic Infants	Number Dead	Per cent Dead
All Deliveries	123	19	15.4
With GOE	53	6	11.3
With Other Anesthesia	52	9	17.3*
Without Anesthesia	18	4	22.2

*Not significantly different at $p=0.05$

various other data show quite clearly that the outcome of the apneic babies delivered under gas-oxygen-ether anesthesia does not differ significantly from the outcome of apneic babies delivered under other forms of anesthesia. In other words, it would appear that although gas-oxygen-ether anesthesia does conduce to delayed respiration, the significance of apnea neonatorum produced in this manner does not carry with it the serious implications in regard to survival of the infant as does apnea which is of other etiology. Table 12 shows that the

Table 12

NEONATAL MORTALITY AMONG APNEIC INFANTS
DELIVERED BY CESAREAN SECTION ACCORDING TO
TYPE OF ANESTHESIA

Type of Anesthesia	Number of Apneic Infants	Number Dead	Per cent Dead
All Sections	39	3	7.7
With GOE	24	2	8.3
With Other Anesthesia	15	1	6.6*

*Not significantly different at $p=0.05$

same relationships hold true when gas-oxygen-ether anesthesia is employed for cesarean section. Although as previously shown gas-oxygen-ether anesthesia for abdominal delivery increases greatly the incidence of apnea, the outcome in such babies is just as good as in infants delivered by cesarean section under other forms of anesthesia.

Finally, the question may arise as to the role of analgesic drugs, such as Demerol, the barbiturates and scopolamine, in causing apnea neonatorum. The role is probably similar to that of gas-oxygen-ether but various complexities prevented the study of this problem in the present investigation. In this connection it must be remembered that numerous factors bear upon this issue. For example, the duration between the last administration of the analgesic drug and delivery is all important; the dosage of the drug and whether it is given orally, intravenously or intramuscularly are likewise determining factors in their effect; and finally, the type of drug, whether barbiturate, Demerol or morphine, would also have to be taken into consideration. Quite obviously, when even small compartments necessary to evaluate these many factors, the figures involved become so small as to preclude statistical analysis. These data, accordingly, do not permit of any statements on the effect of analgesic drugs in causing apnea neonatorum, but clinical experience can leave little doubt that they have a most important effect in delaying respiration in proportion to the dosage and in inverse proportion to the interval between the administration of the last analgesic dose and delivery.

Prophylaxis Against Apnea Neonatorum

On the basis of the analysis previously cited, plus other experience, it would seem that the following injunctions, if carefully

followed, would reduce greatly the incidence of apnea neonatorum:

(1) *Combat Hypoxia.* Anesthetic difficulties are a more common cause of apnea neonatorum than is generally realized. The ideal solution to this problem, of course, would be the availability of an expert anesthesiologist experienced in the special problems of obstetric anesthesia. Such utopian conditions, however, are rarely possible. This explains the trend toward local infiltration anesthesia both for cesarean section and forceps delivery—a trend that is a step forward in the prevention of apnea neonatorum. Aside from anesthetic accidents, the threat of intrauterine hypoxia is best safeguarded by the routine administration of pure oxygen to all mothers during the fifteen minutes or so prior to the birth of the baby. This measure is avowedly unnecessary in the great majority of cases, but apnea neonatorum, as a rule, is not predictable and it is therefore necessary to treat prophylactically all cases in order to meet the needs of a small minority in which fetal anoxia exists.

(2) *Avoid Trauma.* This means that difficult midforceps and difficult breech extractions must be reduced to a minimum, while version and extraction should be virtually eliminated except for second twins. The incidence of midforceps can be reduced greatly by patience and by the cautious employment of intravenous Pitocin and, when these measures fail or do not prove feasible, by the judicious use of cesarean section. The size of the baby, the size and architecture of the pelvis, and the age of the mother will be the determining factors in the selection of certain breech cases for cesarean section.

(3) *Moderate Narcosis.* Experience has shown that frantic efforts to push natural childbirth are both impractical and unwise. The precepts of natural childbirth possess much merit and, if carried out intelligently by trained personnel, will reduce greatly the amount of analgesic drugs required. But any fanatical attempt to employ it routinely is certain to prove a boomerang. On the other hand, analgesia carried to the extent of complete and prolonged amnesia definitely retards the onset of respiration and

has other objections. It would seem that the way of wisdom lies somewhere between physiologic childbirth and profound narcosis.

(4) *Avoid Multiple Insults to the Fetal Respiratory Center.* One practical point brought out by analysis of the data was the frequency with which some combination of causative factors appeared in the apneic group, especially some combination of analgesic drugs, general anesthesia, trauma, and hypoxia. For example, let us consider a case in which analgesic drugs, general anesthesia, and a difficult midforceps operation exert their additive effects on the fetal

respiratory circuit. An infant so narcotized and traumatized almost always exhibits apnea from one to two or more minutes. Now, if one evaluates in advance the additive effects of these three factors and eliminates one of them by using saddle block anesthesia instead of general anesthesia, the probability of immediate respiration would be much better than with all three adverse factors at work. Or, one might bring the head down to the pelvic floor with intravenous Pitocin and so eliminate the trauma of the midforceps. The lesson here is clear—sidestep the infliction of multiple insults to the infant's respiratory center.

Electrolyte Metabolism and Aldosterone Secretion in Benign and Malignant Hypertension. Lagh, John H., Ulick, Stanley, Januszewicz, Włodzimierz, Kelly, William G. and Lieberman, Seymour, *Ann. Int. Med.* 53:259, 1960.

The importance of this article, in the opinion of the reviewer, is the evidence it offers that malignant, or accelerated, hypertension frequently may be associated with excessive aldosterone secretion by the adrenal cortex. By injecting a tracer of tritium labeled aldosterone and determination of the specific activity of tetrahydroaldosterone in the subsequent 24-hour urine collection, the authors believe they have been able to measure the daily quantity of aldosterone actually secreted by the adrenal glands. Patients with benign, essential hypertension had a daily aldosterone secretion in the same range as individuals with normal blood pressure (150 to 350 mcg./day) and showed the same three to four fold aldosterone increase following deprivation of dietary salt. In sharp contrast, the authors found that patients in the malignant, or accelerated, phase of hypertension had a greatly increased aldosterone secretion (510 to 10,000 mcg./day) and were essentially insensitive to salt deprivation. In the early stages of renal decompensation characterized by varying degrees of nitrogen retention and at a time when

one might expect signs of renal acidosis and potassium elevation, the authors' patients with malignant hypertension showed a definite tendency toward alkalosis and a subnormal serum potassium. This is the pattern that occurs in primary aldosteronism and would be compatible in these patients with the associated finding of increased aldosterone secretion. Since primary aldosteronism was described by Conn in 1955, an occasional typical case has been described in which an adrenal neoplasm was absent and in which the histologic sections showed either adrenal cortical hyperplasia or a normal pattern. The question naturally arises as to whether these cases, included as examples of primary aldosteronism, are not essentially the same as those patients described in the present study. In six fatal examples of malignant hypertension included in the authors' series, the combined weights of the adrenal glands averaged 17.8 Gm. as compared with 12.1 Gm. in a normal control series.

A knowledge of the frequency with which excessive secretion of aldosterone is associated with malignant hypertension is of great practical importance and further studies in this direction will be awaited with interest. (Abstracted for the Middle Tennessee Heart Association by Richard Francc, M.D., Nashville.)

The finding of an antifungal antibiotic effective by mouth was truly remarkable. The authors have had success with its use in fungal infections of the skin and scalp especially.

Results with Griseofulvin in the Treatment of Fungal Infections*

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The systemic treatment of certain superficial fungal infections in man at last is a reality. The dramatic preliminary report on griseofulvin by Dr. Harvey Blank¹ at the December, 1958, meeting of The American Academy of Dermatology and Syphilology marked another milestone in the antibiotic age of this country.

Griseofulvin was first isolated in 1939 by Oxford and associates² from *Penicillium griseofulvin dierckii*, and it has since been isolated from three other variants of *Penicillium*.³ Because it failed to show any antibacterial activity, the drug was discarded at that time. In 1947, Brian⁴ and Grove and McGowan⁵ in separate papers reported on identification of griseofulvin as the "curling factor" which was responsible for the abnormal development of fungal hyphae. During the next ten years, it was used extensively against fungus disease in plants and in cattle, but apparently was not used in treatment of fungus infection in humans.

In 1958, Gentles,⁶ of the Department of Bacteriology of the University of Glasgow, showed that the oral administration of griseofulvin had an effect on mammalian trichophyten infections. Widespread study of the drug was then undertaken in humans. There followed in rapid order reports of Riehl⁷ in Vienna, Williams, Marten, and Sarkany⁸ in London, and Blank and associates⁹ in this country, attesting to the effectiveness of the drug in human fungal infections.

Treatment

The antibiotic became commercially

available in July, 1959, and we began using it shortly afterwards. It is the purpose of this paper to summarize our therapeutic experience with griseofulvin and to correlate this with the latest investigative reports concerning the use of the drug, its indications and limitations.

Table I
DATA ON 115 SITES OF INVOLVEMENT IN 94 PATIENTS IN THIS STUDY

Location and Organism	Duration of Therapy
Scalp	
<i>Microsporum audouinii</i>	35
<i>Microsporum canis</i>	8
<i>Microsporum gypseum</i>	3
<i>Trichophyton tonsurans</i>	2
<i>Trichophyton mentagrophytes</i>	1
Total	49
Hands and Feet	
<i>Trichophyton violaceum</i>	7
<i>Trichophyton rubrum</i>	5
<i>Trichophyton mentagrophytes</i>	2
<i>Trichophyton tonsurans</i>	2
<i>Trichophyton, unclassified</i>	9
<i>Epidermophyton floccosum</i>	1
Total	26
Nails	
<i>Trichophyton violaceum</i>	7
<i>Trichophyton rubrum</i>	7
<i>Trichophyton tonsurans</i>	5
<i>Trichophyton mentagrophytes</i>	1
<i>Trichophyton schoenleinii</i>	1
<i>Trichophyton, unclassified</i>	3
<i>Epidermophyton floccosum</i>	1
Total	25
Trunk and Extremities	
<i>Trichophyton violaceum</i>	7
<i>Trichophyton rubrum</i>	3
<i>Trichophyton tonsurans</i>	1
<i>Trichophyton mentagrophytes</i>	1
<i>Microsporum audouinii</i>	2
<i>Microsporum canis</i>	1
Total	15

Our experience in this group of patients parallels that of other reports. Most superficial fungal infections respond favorably to griseofulvin. In general, species of *Trichophyton*, *Epidermophyton*, and *Microsporum*

*Read at the meeting of the Tennessee State Medical Association, April 12, 1960, Nashville, Tenn.

have responded in like manner to similar doses of the drug. However, from table 1, one readily sees considerable difference in response to therapy, depending on regional localization of the fungus. This is understandable if one remembers that griseofulvin is deposited in keratin where its effect is fungistatic rather than fungicidal. The cure rate depends on the rate of keratinization and the time necessary for desquamation of infected keratinized structures.⁹ For this reason it is more convenient to discuss responses to griseofulvin by site of involvement rather than organism. In general, the following dosage schedule was used:

Adults: One gram daily in 4 equally divided doses

Children: Under 50 lbs: 250 mg. b.i.d.

Over 50 lbs: 250 mg. t.i.d. daily

Scalp. (Tinea Capitis). Griseofulvin is highly effective in patients with tinea capitis. All cases, whether due to ectothrix or endothrix fungi, usually respond after 4 to 8 weeks therapy. Acute kerion type of infection subsides in 1 to 2 weeks. Criteria of cure is negative result by examination with Wood's light and two negative cultures. One should remember, however, that trichophyton hair infections do not fluoresce, and this also occasionally occurs in involvement with microsporon. The infected hairs should be clipped short at weekly intervals while under treatment, since the tips of the hairs remain infective until shed. This will minimize spread to both the patient and to other persons.

Recently, we have placed a few children on a single dose schedule of 3 Gm. (12 tablets). This has been well tolerated but, since there was some indication of increased failure rate, this was modified to 3 Gm. in one dose and 1.5 Gm. at weekly intervals for 3 weeks. We have not yet had enough experience to evaluate fully the results of this mode of therapy. If successful the cost of treatment would be considerably reduced. From the public health viewpoint, one dose schedules or its modification would be the optimum way of controlling or eradicating epidemic outbreaks in schools. Since the advent of griseofulvin, we have not performed any X-ray epilations. In our opinion, X-radiation should be reserved for

those rare cases which have not responded to repeated courses of the drug or patients who are unable to tolerate the drug.

Skin. (Tinea Corporis). Lesions involving the skin were usually due to species of trichophyton, except for 3 cases due to microsporon who either had or were exposed to someone with tinea capitis. They uniformly responded to therapy, there being symptomatic relief of pruritus in 2 to 4 days, and clearing of the lesions, often with residual hyperpigmentation, in 2 to 4 weeks. Several patients with trichophyton involvement, usually of many years duration, showed only partial response or relapsed a few weeks after completing therapy. We are not certain at the present time whether more prolonged or higher dosage is the answer or whether these people are in some way immunologically defective. The latter theory is supported by the known susceptibility of patients with lymphomatous diseases to deep fungus infection and *trichophyton rubrum*. It is worth noting that tinea versicolor, moniliasis and erythrasma do not respond to the drug.

Hands and Feet. Lesions in this area clear more slowly because of the greater thickness of the stratum corneum.⁹ Pruritus is usually relieved in 2 to 6 days and clinical response is usually obtained in 2 to 6 weeks. Uniformity of response is not as good as in scalp or other skin infections. This may be due at times to concomitant eczematous skin disorder or moniliasis. The latter may even exacerbate under griseofulvin therapy and require indicated local treatment for control. Also, since lesions in these areas especially require skilled, accurate diagnosis, the increased possibility of error must be entertained in those cases of failure. Treatment should be given from 4 to 8 weeks.

Nails. (Onychomycosis). "Because of the slow rate of nail growth, several weeks must elapse before clinical improvement is first noted at the proximal end of the nail. The distal mutilated nail plate may undergo very little change as it slowly moves out. Fingernails grow out in about four months and toenails take six months or more."¹⁰ Therefore, careful mycologic examination is essential since long term therapy should not be undertaken without positive find-

ings. Combination of drug therapy and surgical avulsion of the nail is being done in some research centers but is not recommended at the present time. A dose of one gram a day for a minimum of 3 months for infection of the fingernail and 6 months for that of the toenail is the presently recommended schedule. However, because of cost, this is almost prohibitive to the average patient in the light of the unpredictable results in a nonfatal, nondisabling disease. Nails treated in our series have shown improvement, but we are not certain of cure in any cases, except tentatively in two (*T. tonsurans*). A modified dosage program of 1 Gm. daily for 2 weeks and then single doses of 1.5 Gm. at weekly intervals for 4 to 6 months is being carried out in a few cases. However, follow-up is too limited to offer an opinion at this time.

Toxicity

The drug has been well tolerated in our series of cases. Only one patient stopped the drug after one week because of persistent severe headache and nausea. A few others had mild transient bouts of nausea, diarrhea and/or headache, but were able to complete their courses. There have been no reports of serious blood, liver, or kidney abnormalities due to the drug in our cases or in the literature. An occasional case of urticaria has been reported, but there were none in our series. It is somewhat surprising to see reports of the drug being successfully used in cases of known penicillin sensitivity, since the drug is derived from *Penicillium*. Nevertheless, it is recommended that griseofulvin be used cautiously in this type of case and only with proper indications.

Comment

In the past 18 months, griseofulvin has been intensively studied in this country. Its mode of action remains obscure, but it apparently is absorbed and deposited in the keratin layer of the skin, hair, and nails. There is considerable laboratory evidence to show that the drug is fungistatic rather than fungicidal, and for this reason long-term therapy is required to insure removal of all infected structures.

We have seen patients with eczema, psoriasis, pityriasis rosea and seborrheic

dermatitis who have been treated with griseofulvin. Needless to say, they were not benefited. Several of our cases of clinical tinea infection of the hands and/or feet, not included in this report, in which there were negative mycologic examination and subsequent treatment failure, are examples of probable mistaken diagnosis. With the advent of a potent and effective oral antifungal drug, accurate mycologic diagnosis becomes imperative. The help of the laboratory, including use of the microscope, culture media and the Wood's light is necessary, first to establish the fact that a fungal infection exists; secondly, to identify the specific pathogenic fungus; and thirdly, to accurately evaluate the progress of antifungal therapy. All of these procedures can be carried out in the office or obtained through utilization of a competent laboratory.

It is useful to remember that not all ring-like eruptions are due to fungi, and not all fungal infections form ring-like lesions. Also, as occasionally happens, two or more conditions may exist in the same patient. One patient in our series had a fungal infection which responded to griseofulvin, but his psoriasis was unaffected.

In addition, we should not forget the valuable topical fungicides which have cured or controlled the majority of superficial fungal infections in the past. Because of their effectiveness and relative low cost, it is still advisable to use them in limited fungal infections and to try them in all other fungal conditions when some reasonable degree of success can be expected. Often topical fungicidal therapy is an important adjuvant to oral therapy, especially in connection with treatment of fungal disease of the hands and feet. This tends to lessen the duration of therapy and also may increase the percentage rate of cure.

Two cases of tinea capitis due to *Trichophyton tonsurans* are reported. This is a significant finding and points out the fact that this fungus which originally spread from Mexico into Texas is now spreading over the Eastern United States. As expected, the vast majority of the scalp cases are due to *Microsporon audouinii* which is the common cause of epidemic tinea capitis in our area.

Summary and Conclusions

A study of 94 patients with 115 sites of involvement with fungus infection has been presented. Griseofulvin, an oral antifungal antibiotic, was given to these patients and was found to be generally effective. The average dosage was 1 Gm. daily to adults and a somewhat smaller dose to children, dependent on weight. The duration of therapy ranged from 2 to more than 24 weeks, depending on the location of the fungal infection. It is recommended that the drug be administered in the above dosage for about 3 weeks in skin lesions, 4 to 6 weeks in hand, foot, and scalp infections, 4 months for lesions of the fingernail and for 6 or more months in involvement of the toenails.

Griseofulvin appears to have a low toxicity for man and no serious side effects were seen in this series. One patient stopped taking the drug after one week because of severe headache and nausea. It can be used in patients who are allergic to penicillin where appropriate indication exists.

Before griseofulvin therapy is instituted, the clinical diagnosis of fungus disease should be confirmed by direct microscopic examination and culture of scrapings from the involved areas. Isolation of fungus from nails may be difficult at times and should be repeated. At the present time, these examinations for fungi are best carried out in experienced mycologic laboratories.

A uniform response to the drug was obtained in fungal infection of the scalp, trunk and extremities. It was somewhat erratic in hands and feet and often disappointing in infection of the nails. It is not clear at the present time whether increased dosage or more prolonged therapy is the answer, or whether these patients are immunologically defective. Nevertheless, griseofulvin when administered in adequate doses over a sufficient length of time, to those patients infected with species of *Microsporon*, *Tri-*

chophyton and *Epidermophyton* fungi, offers a new and most effective mode of therapy. There are no known contra-indications except possibly moniliasis. The drug is ineffective against other species of superficial fungi and may even exacerbate cases of moniliasis. Deep fungi are not affected by the drug, as attested by a number of experimental studies.

As with previous antibiotics, several years of study will be necessary to determine the indications, limitations and contra-indications to the use of the drug and whether fungi will become resistant. At present, griseofulvin appears to represent a safe, effective, oral antifungal drug. Its use probably should be restricted to cases of extensive fungal involvement or fungal infections which are known to be resistant to topical therapy.

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High cost of medical care is here to stay with us and to increase progressively as medical science gives us new tools with which to practice diagnosis and treatment. Unless the biochemist gives us a cancericidal substance which permits the treatment of malignancy in the ambulant patient, imagination offers only an extension rather than diminution in medical care. Hand in hand with this is the equal certainty of the third-party as a means of meeting the increased cost. The author's lucid consideration of the multifaceted problem of the third-party deserves thoughtful consideration by the reader.

Medicine Into The Sixties*

JOHN D. WINEBRENNER, M.D., Knoxville, Tenn.

Doctor Smeltzer, Colleagues and Guests:

It is always an honor to be invited to address a medical society. It is even a greater honor to be invited a second time to speak to one's own Academy, one which can attract so many eminent physicians from our own membership as well as visiting physicians.

None of the institutions of man really stand still, but movement, *per se*, does not necessarily indicate progress. Most of us remain most of the time so deep in detail of daily living that the very direction of our usual endeavor is governed more by habit than by philosophy. The attempt of this paper is to relate certain events of recent years with the basic disciplines of the profession and their orientation in a changing materialistic society over which the medical profession has little control.

In this effort I speak as a medical administrator of a "Third Party," the Medical Service of the United Mine Workers Welfare and Retirement Fund that has functioned in this Tri-State area now into its twelfth year. I am personally most grateful to the members of this Academy who have contributed so much to the successful program of the Trust Fund in this area.

In a world growing more complex, with spiraling increases in technology, population and bureaucracy, there is a merging and growth of both public and private power, economic and political, at the expense of individualism. We find ourselves now in a time of corporate entities, large business, large unions and large government.

In our century the course of automation

and mass production has been followed by mass distribution and vending methods. Credit has become an increasing social phenomenon of our age. More and more Americans live from pay day to pay day with their money already spent. With the costs of medical care mounting to 5% of the gross national product, the medical economy cannot long expect to stand apart and unaffected.

Such significant changes in the American manner of living have led logically to experiments in the field of medical economics. Modern medical care is expensive. It is obviously bent on becoming more so. The emergence of the Third Party in medicine is a natural response to pressure to seek new methods of paying for medical care. Two main avenues contend toward solution. The first being to find some effective method through private enterprise and the second being to utilize the mechanics of government.

A Third Party as simply defined may be any agency that provides for or shares the cost of the medical care of the patient. Broadly speaking the term covers all paternal, fraternal, insurance, beneficial, or governmental services. These agencies that complicate the doctor-patient relationship are not new. It is their rapid growth since the end of World War II that is so remarkable. Wherever organized elements of the consumer public exist there is a growing interest in ways of providing medical services. Fringe benefits providing health insurance are being implicitly accepted by business and industry, while more and more, unions and management toy with direct service plans. The interest of Third Parties in patient care varies as widely in character as it does in scope.

*Read at the meeting of the Knoxville Academy of Medicine, July 12, 1960.

The medical program of the Trust Fund has been selectively designed and administered to meet the particular needs of one specialized segment of our population. It is the largest of the third party noninsurance medical care plans, and covers the working and the pensioned bituminous coalminers, as well as some of the unemployed, together with their wives, dependent children and certain other eligible dependents. The Fund, first established in 1947 as an irrevocable trust, is organized and administered by a board of three trustees as a separate entity, independent of the union and the coal operators.

The Fund derives its revenue from royalty payments on each ton of coal produced for use or sale by signatory operators, this royalty payment at the present time being forty cents per ton.* At present authorized benefits consist of pensions, hospital and medical care, widows' and survivors' benefits and mine disaster relief. The hospital and medical care benefits are made available to the extent and in the manner determined by the Director of the Fund, through the Medical, Health and Hospital Service under direction of Dr. Warren F. Draper, Executive Medical Officer.

When the medical program was initiated in the fall of 1948 by Dr. Draper, he stated that he did not know how to provide medical service to coal miners who lived scattered throughout the rural hills and mining areas of the United States. He knew no one who did. He knew no books that were written that would help. And he said this program by its essential character must be experimental. He said, "There must be various approaches to the problems of medical care. There will be mistakes. We will learn from those mistakes. What we do, then, we will do because we do not know a better way to do it. We will initiate the program by the utilization of existing facilities. We will attempt to develop a program which will provide as much medical service to these people as will be economically available to us."¹

For medical administrative purposes, the

bituminous coal mining area is divided into ten operative areas, each with an Area Office under the direction of a physician—the Area Medical Administrator, whose job is to arrange for the purchase of service within his assigned geographic area. He is responsible for every dollar of Trust Fund money spent for purchase of services. He must vouch through the Executive Medical Officer to the Trustees of the Fund that such services purchased for any beneficiary are: (a) needed, (b) of high quality, and (c) at a fair and just cost. In theory, all services rendered for Fund payment are directly authorized by the Medical Administrator or subject to prior-authorization in one form or another, without which the Fund assumes no responsibility for payment. The individual beneficiary has no claim or contract such as an insurance program may offer.

Since the Fund's sole source of income is a royalty on production, expenditure must equal approximate income. Thus the main control of expenditure is necessarily achieved by limitation of benefits. Up until the first of July of this year, the medical benefits extended to the unemployed and their dependents without any limitation as to duration. The current policy change provides one year of medical benefits to unemployed miners. Even with this revision, however, the benefits are greater than those provided by other programs.† This inadequate discussion of one Third Party might end with the comment that its most significant contribution probably lies in the elevation of the standards of medical service in the rural communities where coal miners live and work. Other tailored health plans to satisfy specific needs in other places in the country have evolved—and more custom-built plans may be expected.

The changes in medical practice during

†The benefits available under the plan are hospitalization for as long as medically indicated, services by a physician in the hospital; certain relatively expensive drugs needed for treatment of chronic conditions; and diagnosis and treatment of psychiatric conditions when prognosis indicates that short term therapy will be adequate. The Fund does not pay for home and office care of a general practice nature, ordinary drugs used outside the hospital, services that other agencies are obligated to provide, or dental service.

The royalty in the original Krug-Lewis Agreement of 1946 was 5¢; it was raised to 10¢ in 1947; 20¢ in 1948; 30¢ in 1950; and 40¢ in 1952.

our lifetime have been phenomenal. The changes in the next decade or two promise to be no less so. Events are rapidly taking shape. Medical care is on the political stage. It is going to stay there. The brew of the fifties will be served up in the sixties. The profession of medicine must find its place and adjust itself to the pattern of these times. At no previous time has the need for constructive medical leadership been more critical. We must accept the moral responsibility attendant upon public confidence to solve the public problems of medicine. It is certainly not too late for the medical profession to exert leadership in the field of medical economics. Such leadership comes at a cost of time and personal sacrifice; it demands much and rewards little.

During the past year a number of regional conferences on health insurance were held under sponsorship of the American Medical Association, and a national meeting was held in May. Many various programs in health services were open to forum discussion. This venture was considered a success, although its only purpose was to exchange information and ideology beyond the narrow limits of each individual's experience.² Dr. Askey³ said at Miami Beach, "I urge every state and county medical society to review once again the recommendations of the Commission on Medical Care Plans . . . I urge that they be implemented now with all possible speed and vigor. Any third party which is trying to do a medically sound job in the field of health care should be numbered among our friends and allies."

Leaders of Organized Labor have become progressively articulate in discussion of what they believe is best for their Union members. I have encountered on a number of occasions a sincere but curious question from physicians, "What is it that Labor wants of the medical profession?" In consideration of reply we must appreciate that "Labor" speaks not as a single entity. It is a disseminated fraction of the consumer public, speaking with many voices from various situations and communities.

It is hard to escape the thought, however, that Organized Labor represents a vocal segment of our population. Its concern for health services has two main interests: one,

the method of payment, and two, the quality and character of services. To be more specific, labor leaders have said they desire to prepay medical costs. They want the combination of preventive medicine, diagnosis, treatment and rehabilitation in one package. And, with growing insight, they recognize the curious relationship of cost and quality in medical care.

We, the profession, have proclaimed that we have the best medical care in the world. We have advocated the application of preventive medicine. We have emphasized early diagnosis and treatment. We have demonstrated the economic and human values of rehabilitation. We have convinced labor leaders by our teaching, and they are astounded when the profession is displeased by their endeavor to expand the scope of medical services. Logic leads them to impute to us motives we all least admire.

We might also ponder upon the parallel interests of labor and of medicine in the free enterprise system. The contribution by these organized lay elements of our society has had an inestimable effect upon the availability and quality of medical care. Without the past support of labor to "Third Party" programs the pressure for federal intervention would almost certainly have welled up long ago.

This coincidental cooperation in the past is even more remarkable in view of the rarified atmosphere of communication between natural allies against governmental interference. The aloofness of the profession must bear much of the responsibility for the turning of labor leaders toward government. While labor leaders also distrust politics, they feel their voice and influence in Washington is more respected than in Chicago. The magnitude of this development should not be underestimated. It may hardly be germane to say that it might have been prevented, but this lesson should not be lost: that there remains great need for the profession to build up communication with labor and with all other elements of our society.

The earliest danger to the present system of medicine, however, probably lies in the problems facing the voluntary health insurance system. While pressures exist to expand coverage, economic pressures increase

to make it difficult to hold the present line. The evidence suggests that unless more selective use of institutional service is achieved, unless the medical profession in some manner aids in an effective control of waste and abuse, the inflationary factors will continue to increase premiums. At some point the public will refuse the voluntary way.

It is not a question of change or *status quo*. The dilemma of American medicine is where and how to change, how to adjust to the economy of credit and prepayment and preserve the role of the profession. Medicine remains in an opportune position to guide, although it cannot arrest the course of events. The strength of its influence will depend upon historic and aggressive protection of the patient, the promotion of ever higher standards of service, and the enforcement of professional disciplines upon its membership.

If Organized Medicine assumes leadership in designing the modern health care of this changing nation, a thorough diagnostic study will be necessary before objective therapy can be applied. There are no real experts in the field of medical care. All ventures in medical socio-economics remain to a large degree experimental even yet. There is continued need for exploration. There has accumulated over recent years a widely scattered and variable experience which warrants careful study and analysis.

While the physician as an individual is highly respected, it is the physician's role as an economist or political scientist that attracts the boos and cabbages. We human beings have remarkable capabilities for self-deception. Physicians, like all specialized groups in our society, are disposed to commune with themselves, selling each other professional concepts, with the assumption that this will be commonly accepted as being the public interest. Error is easy to preserve since we all tend to believe what we wish to believe. Furthermore, the truth can be hard to come by. The pinnacle upon which people place their personal physician is also a barrier to criticism. One might wonder how often what a patient tells his doctor and how he votes are two different things.

A friend¹ of the medical profession has

said, "Organized Medicine has notably succeeded in giving the public impression that it is fighting a last-ditch stand against all social advance, and that it is chiefly concerned not with its boasted first principle of healing the sick, but with lining its pockets. This is, I hasten to say, a false impression in most instances, but it is one that medicine too often makes. You or someone else must see to it that organized medicine comes to represent some things that are progressive and positive, not simply those things which are old and negative. Life moves on, but medicine continues to give the impression that it is fighting a last-ditch stand against progress. . . . The point of it all seems to be this: No matter what it thinks of the brave new world that looms ahead, no matter how it may despise undeniable trends toward social living, organized medicine is doomed to a future of Federal control unless it chooses to lead instead of dragging its heels."

The prestige of the medical profession is mainly a heritage of the past. We alone have not earned it. This honor is a symbolic reflection in the minds of men that must go back beyond the Hippocratic Oath. It is a sort of priesthood of medicine from which people expect a great deal. The best defense of the medical profession is the personal touch and dedication of the individual physician. Our public position must also represent the historic position of this priesthood. To whatever extent the medical profession is identified as a vested interest in the market place it shall be treated as a merchant.

We need to re-examine our motives and our traditional prejudices in our own self-interest if for no higher reason. We must believe that satisfactory solutions can be found. Progress always involves alteration of established order, but change does not require the end of entrepreneurship. The profession needs greater faith in itself. We can afford neither isolation nor an affectation of superiority. When we have shed these impediments we can better communicate with our fellow citizens and with combined ingenuity and wisdom create better ways of doing things in the nineteen sixties.

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Discussion

Leon J. Willien, M.D., (Knoxville)

Dr. Winebrenner occupies a unique position. He is employed by a third party in medical care, yet is a member of our profession and a good one. Whether one agrees with the policies of the U.M.W.A. Welfare and Retirement Fund or not I believe we are all agreed that Dr. Winebrenner has done an outstanding job as Area Medical Administrator. That the quality of medical care in this part of our state and Eastern Kentucky that was available to the miners has been vastly improved is an accepted fact and has been brought about by our cooperation with the Fund and the Fund's cooperation with us through our friend and colleague, Dr. Winebrenner.

The thing that impresses me most of Dr. Winebrenner's remarks is his statement "the emergence of the third party in medicine is a natural response to pressure to seek new methods of paying for medical care" and his definition of third party as "any agency that provides for or shares the cost of the medical care of the patient."

Ever since the days of Oscar Ewing it seems to

me that we doctors have always been on the defensive. The public is not able to separate the increased cost of hospitalization and all the allied ancillary costs from their doctors fees. We get the blame even though we do not deserve it. The whole of the situation as I see it was expressed by Dr. Winebrenner when he stated "at no previous time has the need for constructive medical leadership been more critical." It seems to me that instead of writing our Congressmen and Senators expressing our views for or against certain measures, such as the Forand Bill, it behooves us to sit down and decide what we can and will do and what we will not do for any interested third party. Our organization needs to become more closely knit and with a firm reasonable policy. Most of us are physicians because of our distaste for bargaining and worrying with business problems. We are too busy doing a good job individually to worry with the fact that we are doing a very poor job collectively in the field of medical economics.

What do we want—a number of struggles against medical plans fostered by politicians and labor leaders—or—socialized medicine—or—do we wish to study and discuss the problems as outlined by Dr. Winebrenner to decide a firm policy and course of action and see to it that it represents the feelings of the majority of the medical profession in the American tradition of majority rule.

As Dr. Winebrenner has shown times of change are here much as we do not like it. Do we meet the crisis with hard work and time and emerge as leaders or do we consider that the problems do not apply to us in our individual practice and insist upon the *status quo* until the fate of the British Medical Association is upon us?

I would like to thank Dr. Winebrenner for bringing us this timely paper and to urge the membership of this Academy to invest time and effort in solving our problems.

Simple Office Operation for Spastic Entropion*

FRED A. ROWE, M.D., Nashville, Tenn.

Senile entropion, a condition in which there is an inversion of the lid margins, has been a problem to physicians since the early times of civilization. The condition generally associated with the lower lids produces an irritation to the globe and discomfort to the patient. Through the years many theories have been proposed as to etiology; however, even today the exact cause is still unknown.

Adler¹ in his recent, "Textbook of Ophthalmology" states that "when the tone of the orbicularis is increased, the muscle of Riolan may contract in such a forcible manner as to turn the lid margins against the globe."

Fox², however, in an excellent article, disagrees with Adler in that the muscle of Riolan is too weak and feeble to bend the lid inward. It is Fox's opinion that there is a senile relaxation of the skin and muscle of the lower lids. The skin of the lower lid is hung on a fibrous sling, composed of tarsus and canthal ligaments. With absorption of the orbital fat there is a retroplacement of the globe and the upper border of the lid turns inward.

More recently Jones³ stated that there is a decrease of pressure against the lower margin of the tarsus and increase in the upper margins allowing the tarsus to turn inward.

As you can see from these three authorities the exact etiology is still not understood.

During the past year and a half I have had the occasion to operate on 7 cases of senile entropion using a simple office procedure.

The procedure was described by Wies⁴ in the "Transactions of the American Academy of Ophthalmology and Otolaryngology."

The patients come to the office 30 minutes prior to operation at which time they are given Empirin and codine ½ gr., and several drops of Pontocaine are placed in

the eye. After waiting several minutes, 3 cc. of 2% procaine with epenephrine 1:1000 added is injected into the subcutaneous tissues of the lower lid. Then pressure is applied over the lid with a small sponge.

A lubricated lid plate should be placed in the lower fornix to protect the globe. The incision is made with a Bard-Parker #15 blade, 4 mm. below the lid margins extending approximately the entire length of the lid. The incision is made perpendicular through the lid, orbicularis, tarsus, and conjunctiva. Suction may be helpful in preventing bleeding from obstructing the operative field.

When the incision has been completed, a double armed 4-0 silk is placed centrally into the lower lip of the conjunctiva with the loop inside on the conjunctival surface. Similar sutures are placed medial and lateral to the central suture. The ends of these sutures are brought out through the upper lid of the skin surface and tied over rubber pegs. The skin edges are closed with interrupted sutures of the same material. No subcutaneous or conjunctival sutures are required.

An ointment is placed in the eye and a pressure patch is applied for five days. The interrupted sutures are removed after 5 days and the double armed sutures which have been tied over pegs are removed after 7 days. There is surprisingly little scarring and the cure of the entropion is almost immediate.

Each of the following 7 patients was operated on in the office from September 1958 to November 1959, using the procedure just described. During the past month I have written each of the patients to come to my office for evaluation of the operation.

The *first patient*, Mrs. G.W.D., age 80, had complained that her left lid turned in for two years. I had operated on her right eye for a cataract and during a postoperative visit, September 30, 1958, she consented to have a plastic repair of her left lower lid. I was able to follow this patient's course until Feb. 20, 1960. There was no recur-

*Read before the meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 11, 1960, Nashville, Tenn.

rence of the entropion and she was quite pleased with the results.

The *second patient*, Dr. W.S.J., age 82, had been wearing scotch tape to hold his lid down since 1954. During a routine visit he consented to have his right lower lid repaired. The sutures were removed in 5 days with some over-correction. I saw the doctor two months later, and the over-correction had subsided. He was quite pleased with the results. However, on a recent visit his lid had turned back in again with a recurrence of the entropion.

The *third patient*, Mrs. W.F.G., age 74, was seen because the eye-lashes were scratching her right eye. I advised an operation. She hesitated at first, since two previous Zeigler cauteries had failed to improve the entropion. She returned in two weeks and consented to the operation. The entropion was cured for approximately six months, but after that period the lid turned back in.

In the *fourth* and *fifth* cases, Mrs. R.H.G., age 66, gave the history of bilateral entropion for 6 months. The right lower lid was operated on April 28, 1959, and the left lower lid was operated on June 25, 1959. From the slide you can see the results. This picture was taken two months after the second operation. I saw the patient again in my office on March 9, 1960, at which time the right lid had turned in again. However, the patient was insistent that I try another operation on the right lower lid.

The *sixth case*, Mrs. J.T.P., age 81, was also operated on the afternoon of June 25, 1959. She had been referred by her family physician for trichiasis of her right lower lid for almost a year. She was last seen on March 30, 1960. There was no indication of entropion and she was pleased with the results.

The *seventh patient*, Mrs. O.H., age 65. The

left lower lid had turned in for six months. She had had an operation on November 9, 1959. When last seen on December 4, 1959, she appeared to have an excellent result. She was unable to come to my office again, but wrote me on March 29, 1960, that she was fully satisfied with the results and pleased that she had had the operation.

Conclusion

Even though the condition of senile or spastic entropion has been known for hundreds of years the exact etiology is still a mystery. I have briefly discussed several recent theories as to the cause. Seven cases of spastic entropion were operated by a simple procedure described by Wies in the 1955 Transactions of the American Academy of Ophthalmology and Otolaryngology. The operation takes no more than twenty minutes and can be done in the office. Each of these seven cases has been followed for a minimum of 6 months. The entropion has been cured in 4 of the cases and the patients are quite pleased with the results. In the other 3 cases the entropion has reoccurred in from four to six months after the operation.

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Anatomic and Clinical Significance of Calcification of the Aortic Knob Visualized Radiographically.

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Calcification in the wall of the aortic knob as seen on radiographic examination is accepted as being the site of severe arteriosclerotic changes. Because of the simplicity of radiographic examination of this area, the author, Irving Chapman, M.D., City Hospital, Elmhurst, New York, thought it would be of interest to determine if calcification here was indicative of the amount and degree of arteriosclerotic changes in the remainder of the aorta. Accordingly aortas from 100 consecutive autopsies of patients more than 60 years old who had recent roentgenograms of the chest were examined. In 32 cases calcification of the aortic knob was seen in the clinical x-ray film. In all of these a corresponding calcified arteriosclerotic plaque was seen on gross examination. All of these plaques in the aortic knob had an interesting distribution in that the great majority were at the site of the aortic insertion of the ligamentum ar-

teriosum. Almost all the remainder were along the linear designation termed the aortic isthmus (a slight constriction at times seen between the origin of the left subclavian artery and the attachment of the ductus arteriosus).

The finding of striking importance was that the plaques found in the vicinity of the aortic termination of the ligamentum arteriosum and along the aortic isthmus bore no correlation to the degree of arteriosclerosis in the remainder of the aorta. Of the 100 aortas examined, 99 revealed gross arteriosclerotic alteration in the aortic knob. Significant calcification in the aortic knob was seen in 91. In 19 of the aortas with minimal arteriosclerosis there were significant calcified arteriosclerotic plaques in the knob.

The previous findings of others that there is no consistency in the degree of arteriosclerotic alteration in the various portions of the aorta is confirmed by this study. (Abstracted for the Middle Tennessee Heart Association by William Ewers, M.D., Nashville.)

STAFF CONFERENCE

University of Tennessee College of Medicine*

Management of Pharyngoesophageal Diverticula

DR. HARWELL WILSON: Gentlemen, we have an interesting case for your consideration this afternoon. Dr. Sidney Birdsong is going to present the case to the group. Dr. Birdsong.

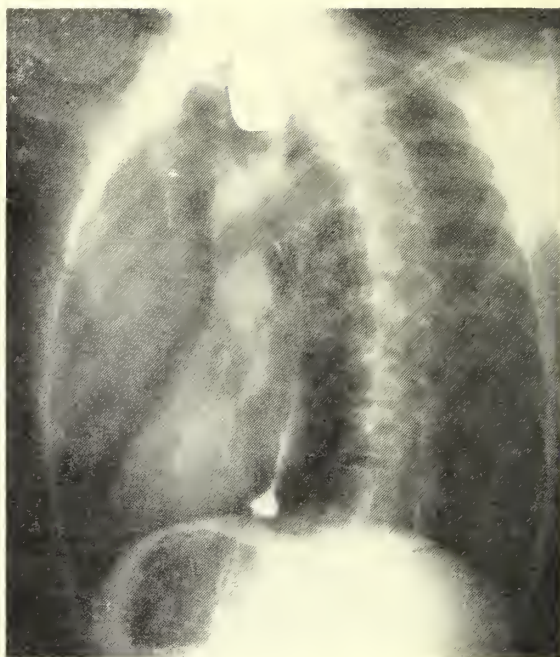
DR. SIDNEY BIRDSOING: This patient is a 48 year old man who was admitted to the hospital on August 18, 1960 with a history of food lodging in the upper esophagus. He also gave a history of regurgitating food into the mouth on coughing and frequent gurgling noises originating in his neck when he reclined. Further questioning yielded a history of a 15 pound weight loss in the past six months. A review of systems was non-contributory with regard to the present illness. Examination of his past history revealed that he had had a sub-total gastric resection done four years previously for peptic-ulceration. He stated that he had done well since that time.

Physical examination on admission revealed the blood pressure of 110/60 with a pulse of 80. Examination of the oropharynx failed to reveal any abnormalities and we were unable to demonstrate a mass or any other abnormalities in the neck. The remainder of the physical examination was essentially negative. Admission laboratory data revealed an hematocrit of 38 and urinalysis was essentially negative.

The clinical impression upon admission was a possible pharyngo-esophageal diverticulum. After admission, this patient was given a roentgenological examination, the barium swallow revealed a moderately large esophageal diverticulum pointing to the left side of the neck. This was substantiated by a cinefluoroscopic study which demonstrated the pharyngo-esophageal diverticulum very nicely. He was operated upon on August 24, 1960.

DR. HARWELL WILSON: Thank you, Dr. Birdsong. Dr. Dodd, I believe you operated on this patient. Would you tell us about the findings at the time of operation?

DR. DAVID DODD: The lesion was approached through an incision made parallel to the anterior border of the left sterno mastoid muscle. The thyroid strap muscles and the lateral side of the thyroid were indentified and retracted medially. The ansihypoglossus nerve was identified along with the



sterno mastoid muscle and retracted laterally. This brought into clear view the omohyoid muscle which was divided and retracted from the field. The fibro areolar tissue about the esophagus was then entered and the diverticulum was identified and dissected back to its neck which measured 1 cm. in diameter. It arose from the esophagus from a postero-lateral position and hung down into the superior mediastinum. There was minimal inflammatory reaction surrounding the diverticulum. The blood supply of the diverticulum was distributed along with the fibers of muscularis which spread out over its surface. The neck of the diverticulum was clamped across with an instrument, transected, and over-sewn with a 3-0 chromic-suture using the Parker Kerr technique. The muscularis was then closed over the mucosa using two layers of very fine interrupted silk sutures. The incision was then closed in anatomical layers with a small penrose drain being brought out of the inferior angle of the incision. The skin was closed with interrupted silk.

DR. WILSON: It is apparent then that the clinical impression which Dr. Birdsong had was quite correct. This patient had a diverticulum of the esophagus as had been clearly demonstrated by x-ray and by the operative findings of Dr. Dodd. Dr. Storer, I believe you are the attending surgeon, this patient being on your service. Do you have

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any comment that you would like to make about this problem?

DR. EDWARD STORER: One of the more interesting aspects of this case was that though we often talk about a "textbook" picture of a particular disease, this was one of the unusual patients who really does exhibit a "textbook" picture of pharyngo-esophageal diverticulum. His symptoms were those of regurgitating unchanged food, and secondly, gurgling noises in his neck on changing position or pressing on the neck. These are the usual textbook symptoms. This position, of course, is the usual location for pharyngo esophageal diverticula of the pulsion type.

DR. WILSON: Certainly, this is a typical pulsion type of diverticulum of the esophagus and as we all know this is the most common type. The other type of esophageal diverticulum is the traction type of diverticulum where the outpouching of the esophagus is due to some inflammatory process in an adjacent structure. Dr. McBurney, you have been interested in this problem, would you continue this discussion?

DR. ROBERT MCBURNEY: Thank you. As Dr. Storer mentioned, this particular patient has a very typical history of pharyngo-esophageal diverticulum. However, I think it might be well at this time to mention and bring out the fact that many of the patients do not have such a clear cut picture and that sometimes it is difficult to be absolutely certain of what one is dealing with until more extensive studies are done. The most important symptom of any patient with esophageal disease is dysphagia. This should be thoroughly investigated when any physician is faced with an individual who complains that food doesn't go down in a normal way. Some of these people with pharyngo esophageal diverticulum will have just a momentary sensation of food hanging up before it goes down and others will be so completely obstructed, as far as swallowing is concerned, that they have been unable to swallow liquid or solid food. There is such a wide range of symptoms here that, of course, each individual has to be thoroughly investigated. As far as physical examination is concerned, these individuals usually are elderly, the average age in any group is somewhere in the fifties or sixties. If there

has been a fair amount of esophageal obstruction, one usually finds that the individual is malnourished or sometimes cachectic. Frequently, the local findings on physical examination reveal very little. Locally one may demonstrate the gurgling noise in the throat, as this patient complained of, by having the patient drink a little water and then when the examiner makes gentle pressure on the neck, he can hear the water gurgling in the diverticulum. Occasionally by having the patient strain down with the so called Valsalva maneuver a soft bulge can be noticed in the anterior neck just in front of the sterno mastoid muscle. Usually no mass is felt and physical examination may be negative. X-ray, namely barium swallow, is practically always diagnostic and this is the main tool that one uses in making a diagnosis. The cinefluoroscopy done on this patient was very beautiful and demonstrated the filling and emptying of the diverticulum.

Esophagoscopy is only rarely indicated in these patients because first, this can be a hazardous procedure in this type of situation, second, because it doesn't give one too much information and third, because it is a procedure which adds an additional expense to the patient without providing useful information. I think if there is any question about other esophageal disease such as hiatal hernia, stricture, carcinoma, or if there is any evidence of additional disease, then esophagoscopy should be done prior to operation.

DR. WILSON: Thank you, Dr. McBurney. Dr. Pate, would you discuss further the differential diagnosis which may be involved in the management of cases of this type?

DR. JAMES PATE: The differential diagnosis of these lesions primarily is based on the various symptoms which they cause. The mass in the neck with changes in its texture and feeling with straining or coughing may be mistaken for such lesions as cystic hygromas or the various types of cysts associated with the esophagus or the tracheo bronchial system. Among these are enteric cysts in the wall of the esophagus or diverticulum of the tracheo bronchial system itself. All of these various lesions will show an obvious cyst or bulge on straining or coughing. The cystic hygromas, of

course, occur almost entirely in small children. The other lesion, which is more rare and which should be considered when we have a mass which changes in tension with changes in thoracic pressure is hernia of the lung, which may occur through the supra clavicular foramen. These herniae usually occur considerably lateral to the base of the neck and are therefore not easily confused. They may on occasion herniate into the base of the neck itself and be very similar in location and feel to a large diverticulum which is full of air. We now have a patient on our service with a bi-lateral hernia of the apices of the lung into the neck and its location, and in fact, the character of the mass associated with the patient's history of gurgling on straining led us first to make a diagnosis of esophageal diverticulum, which diagnosis was in error. The other lesion which should be considered is the rare occurrence of telangiectasis of the venous network of the neck, primarily the external jugular vein and on occasion the internal jugular vein in which case the intra thoracic pressure is transmitted through the cavae and jugular veins to the mass so that the mass becomes distended on straining or coughing. This again can closely mimic the lesions which we are now discussing. Another indication for operation which was not mentioned but should be, is the well-known occurrence of pulmonary crippling in the patients who have large diverticula with constant and repeated spilling of the diverticula contents into the tracheo bronchial tree, particularly after they retire at night so that the lungs are frequently contaminated with both food and saliva. This may produce a very chronic inflammatory process of the lungs, usually most marked in the bases along the mediastinal aspect. If untreated, this pulmonary pathology may become the dominant lesion and a factor in the patient's health. Therefore, the early removal of the diverticulum is indicated in the prevention of pulmonary complications.

DR. WILSON: I think Dr. Pate has outlined very nicely the various differential diagnoses which must be carefully considered in such a problem. One thing that is interesting to me about this particular case is that our methods of operative management of diverticulum of the esophagus have

changed over the years in some ways somewhat similar to the way that our methods of management of lesions of the colon have changed. I refer at the moment to the fact that most of us now prefer to treat lesions of this type with a one stage operation, where as a number of years ago we usually felt that it was safer to carry these procedures out as a staged procedure, at the first operation simply elevating and mobilizing the diverticulum, allowing the area to seal off in order to avoid the possibility of the patient developing mediastinitis and then at second operation perhaps four to five days later, removing the diverticulum and closing the opening in the esophagus. Actually the present method of treatment is much easier from a technical point of view because one can determine the exact junction between the diverticulum and the esophagus much more accurately when it is carried out in one stage. I believe Dr. Dodd closed the esophageal mucosa in this patient with a fine running chromic suture and then used very fine silk to close the muscularis of the esophagus. I would like to emphasize that I personally feel it is exceedingly important when closing the wound of the esophagus to use very fine interrupted sutures. I think that this is one of the places that it is absolutely necessary to be very particular in our surgical technique. Patients that were operated on by the two stage technique were almost all drained and actually I see no objection to placing a small drain down to the site of closure, as was done in this case. Dr. Pate.

DR. PATE: As thoracic surgeons, of course, most of our lesions of this type are the so called epi-phrenic diverticula which again are pulsion types that occur primarily in the lower two inches of the esophagus. These are quite different from the lesions that occur a little higher and that are usually due to traction on the esophagus by adjacent inflammatory nodes of tracheo bronchial system. The epi-phrenic diverticulum is extremely insidious, the symptoms are usually late in onset and are usually mild in relation to the size of the diverticulum. Again the diverticulum is a true diverticulum in that the mucosa protrudes through the defect in the muscularis of the wall and may reach huge sizes, some of

which are eight or nine inches in diameter. They may be present to either side of the mediastinum, and they seem to be more frequent on the left but may occur on the right and present posterior to the heart. In such locations they can be extremely confusing from the diagnostic standpoint. The complications are essentially the same as those produced by diverticulum of the pharynx, except that pulmonary complications are almost unknown in the epi-phrenic diverticulum except for pressure effects produced by a large diverticulum. The surgical technique is essentially the same except the trans-thoracic approach is used.

DR. WILSON: Dr. McBurney, what about the mortality rate and what about the chance of recurrence after operation for pharyngo esophageal diverticula?

DR. MCBURNEY: The mortality rate with the one stage operation now is essentially the same as with the two stage operation, and that is, in both types of techniques, essentially less than 1%. In the large series just reported this last year by Clagget and Payne of about 480 cases, they reported a mortality rate of 8/10 of 1% and I believe Dr. Lahey's series published just before his death in 1956 on the two stage procedure reported a mortality rate of less than 1%. For all intents and purposes the mortality rate is about the same for these two techniques. The great advantage of a one stage procedure, of course, is that the patient has one operation, one anesthetic risk and the expense of the hospital stay and other things of that nature are greatly reduced. I think it might be worthwhile saying that there is still an occasional patient where a two stage procedure may be indicated. I speak here of the individual who may have a great deal of food and waste in the sac and where the diverticulum is obstructing. The first stage may relieve the obstruction and allow the individual to get into a much better nutritional shape for the second stage. The majority of cases, however, can be done quite well with the one stage procedure.

The complications in this type of surgery are similar to those found in surgery of the esophagus in any location. The incidence of complications is again less than 1%. Occasionally one will take the neck of the sac off

too close to the esophagus and when the healing has occurred a small amount of stricture is present. But in most cases where this occurs it is very easy to pass a dilator and open up the stricture. I have never seen one that strictured to such an extent that one or two dilatations could not relieve it satisfactorily. The other complication is, of course, recurrence of the diverticulum and this is usually due to the fact that one apparently doesn't take the sac off close enough to the esophagus, and leaves a small bulge of mucosa present which is the leading point for recurrence of the diverticulum. Here the incidence is again about 1% in most series. While recurrence is a distressing thing, still it can be handled usually quite satisfactorily.

DR. STORER: May I add two more complications that do occur rarely. The first of these is thoracic duct injury and secondly recurrent nerve injury.

DR. WILSON: The point was mentioned that the two stage operation may be indicated occasionally especially in very poor risk patients who show marked cachexia. There is another point which I would like to emphasize at this time, and that is the use of a local type of anesthesia which may be a type of anesthesia very helpful in making the operation safe and efficient. Fortunately we have much better general anesthesia now than we have had in previous years. I think that we frequently tend to take this for granted. On the other hand, it should be pointed out that in previous years and even occasionally now it will be wise to operate on some of these patients with local anesthesia. One who is not accustomed to using local anesthesia may be surprised with the ease that such a diverticulum of the esophagus may be mobilized following local infiltration of procaine along the anterior border of the left sterno mastoid muscle. It also might be emphasized that in a few elderly and very cachectic patients where the diverticulum has been mobilized and sutured superiorly with an idea of going back later and removing the diverticulum that the patient has been completely relieved of the symptoms and failed to return simply because he thought he was already cured. In the management of cases of this type, the question is always raised

as to whether one should use a Levine tube or not, and if so whether it should be left down post-operatively or not. Dr. Dodd, would you discuss this phase of the management and also tell us in this specific case what was done?

DR. DODD: In this particular case, we chose to use the Levine tube during the operative procedure, however, the tube was not passed until the esophagus and diverticulum were well exposed. The tube was then passed by the anesthesiologist and guided by direct manipulation of the esophagus at its junction with the diverticulum. The tube was passed on into the stomach without damage to the esophagus at the level of the diverticulum.

DR. BIRDSONG: I think it is worthwhile to mention that a certain amount of care should be taken in regard to the insertion of the Levine tube on these patients. It would be very easy to insert the tube into the diverticulum and if undue pressure was exerted, certainly it would be possible to perforate the diverticulum in cases where these tubes were put down pre-operatively and when they are not under direct vision.

DR. WILSON: Dr. Pate, what is your

opinion regarding when these patients should be given something to eat?

DR. PATE: This is very similar to the problem that arises with gastrectomy and it probably depends more on the opinion of the operator than on any physiological explanation. It is always my feeling that with the Levine tube down the patient always swallows a certain amount of saliva around the tube. This, coming from the mouth of course, is contaminated and is no different from liquids going through the esophagus. I personally like to take the tube out as soon as peristalsis is established. We leave it down until that time to prevent vomiting and an increase of esophageal pressure which would cause excess tension on the suture line. As soon as the tube is out, we put the patient on liquids thinking that the dilution of the contaminated saliva is probably more important than the danger of any contamination which might come through the food.

DR. WILSON: Gentlemen, I think all of us will agree that this patient presents an interesting opportunity to discuss the problems which are presented by the diagnosis and the management of diverticulum of the esophagus.

CLINICOPATHOLOGIC CONFERENCE

Vanderbilt University School of Medicine* Acute Bacterial Endocarditis

This 21 year old colored housewife and mother was admitted to Vanderbilt University Hospital on September 27, 1953 with a chief complaint of cough and chest pain.

The patient had been well until 2 weeks prior to admission when she developed a persistent, hacking cough productive of small amounts of whitish sputum and substernal chest pain which was aggravated by coughing but not by simple breathing. She also noted malaise, generalized weakness, and nocturnal sweating without documented fever. On several occasions she vomited during paroxysms of coughing. Her present illness had been accompanied by moderate shortness of breath. Her last menstrual period had occurred in April, 1953.

The patient's past history was one of good health. There was no history of rheumatic fever or syphilis. The patient had been examined frequently in childhood and knew of no cardiac abnormalities. Vanderbilt University Hospital records of her two previous pregnancies in 1950 and 1952 contained no mention of cardiac murmurs. The patient's mother, father, 3 sisters, and 4 brothers were living and well.

Physical examination on admission disclosed a blood pressure of 136/0 mm. of Hg., a pulse of 120 beats per minute, a temperature of 99.6° F., and respirations of 24 per minute. The patient was a well-developed, well-nourished, pregnant colored woman in no acute distress. She had an occasional hacking cough which not productive of sputum. The skin was warm and dry and there were no lesions noted in the mucus membranes or skin. There were no abnormalities of the head and neck and no generalized adenopathy. The lungs were clear to percussion and auscultation except for a few moist rales at the right base posteriorly. The heart was not enlarged. The rhythm was regular and the sounds of good quality. A systolic thrill could be felt in the left second interspace. Auscultation revealed a Grade 3 rough systolic murmur in the aortic area which radiated to the neck. A soft decrescendo diastolic murmur could be heard in the aortic area radiating down the left sternal border. The abdomen was protuberant and contained a lower abdominal mass compatible with an intrauterine pregnancy of about 5 months. The fetal heart sounds were audible. The liver, spleen, and kidneys were not felt. Pelvic and rectal confirmed the presence of pregnancy. Examination of the extremities revealed no clubbing, cyanosis or edema. The neurological examination was unremarkable.

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Laboratory Data: The urine had a specific gravity of 1.010, a pH of 6, and was free of protein and sugar. Microscopic examination of the urinary sediment revealed 8 to 10 white blood cells and occasional granular casts per high power field. Total white blood cell count was 11,500 cells per cu. mm. with 8% juveniles, 70% segmented forms. The Hgb. was 7.9 Gm.%, the uncorrected erythrocyte sedimentation rate 67 mm. per hour. A sickle cell preparation and an L.E. preparation were negative.

The fasting blood sugar was 102 mg. and the nonprotein nitrogen, 18 mg. per 100 cc. Total serum proteins were 5.5 Gm., with 2.3 Gm. albumin and 3.2 Gm. globulin per 100 cc. Serum alkaline phosphatase was 5.7 Bodansky Units. Total serum bilirubin was 1.3 mg. with 0.8 mg. direct reacting bilirubin. A cephalin flocculation test was negative. Thymol turbidity was 6.5 units. Serologic studies for syphilis including Kahn, Wassermann, VDRL were negative.

Throat cultures yielded only *Neisseria* and *Streptococcus viridans*. A urine culture showed no growth. Sputum cultures were negative for tubercle bacilli and grew only *Monilia albicans*. Six blood cultures remained sterile on prolonged incubation. A heterophile agglutination was positive in a dilution of 1 to 80. Antistreptolysin O titer was 1:256. The electrocardiogram showed some abnormal ST segment depressions but was otherwise unremarkable.

A chest roentgenogram taken on September 27, showed straightening of the left heart border and normal lung fields. The cardiac to thoracic ratio was 15.5 cm. to 30 cm. A second chest x-ray film taken on October 5, showed the heart to be somewhat larger than on September 27, with increased fullness of upper left heart border.

Hospital Course: During the first week of hospitalization the patient's temperature varied between 99 and 100.2° F., then fell to 98° F. concomitant with the initiation of salicylate therapy. The pulse was persistently elevated at 90 to 120 beats per minute. The cough continued. A transfusion of 1500 ml. of whole blood was given, but the patient remained irritable and restless. On the 7th hospital day the patient was noted to have pedal edema and an apical systolic thrill and murmur were present. At this time she was begun on digitalis, salicylates were administered and salt was restricted. On the morning of the 10th hospital day the patient suddenly developed severe substernal pain, sweating and increased tachycardia. On the evening of the 10th hospital day she was found dead in bed.

Discussion

DR. DAVID E. ROGERS: This is a dramatic and distressing case. We are asked to consider the sequence of events which allowed a 21 year old colored girl to die an apparent cardiac death following a symptomatic illness of only 3 weeks duration. This

illness arose in a setting of excellent past health without known cardiac disease. The short present illness was characterized by a cough, substernal pain, nocturnal sweating, malaise and weakness. The significant findings on examination were slight fever, a collapsing pulse with a blood pressure of 136/0 mm. of Hg., an impressive tachycardia which persisted throughout her hospitalization, systolic and diastolic basilar murmurs with a *normal* sized heart, and signs of a viable 5 month pregnancy. The laboratory data which seems of note were an essentially unremarkable urinalysis, a striking anemia, a moderate leukocytosis with an increase in immature granulocyte forms, and a slight increase in serum bilirubin and serum globulin. The patient had repeated negative serologic tests for syphilis, and 6 blood cultures were all negative. The chest x-rays are surprising. Despite the evidence of impressive aortic insufficiency, her heart appears relatively normal except for some straightening of the left border which increased during her hospitalization. I believe there is definite fullness in the area of the pulmonary conus.

During her hospitalization the patient was febrile until the addition of salicylates. Her tachycardia persisted, indeed increased, following the drop of her temperature to normal. She developed signs of right sided failure with an apical systolic thrill and murmur. She died very suddenly on the tenth hospital day.

In considering the diagnostic possibilities which might explain this illness, I believe we have one striking orienting feature—that of aortic insufficiency. I believe we could add one other important point—that the aortic insufficiency was probably of recent origin. I make this statement with some assurance because of the finding of a *normal heart size*. As you know, aortic insufficiency produces some of the largest hearts encountered. The presence of aortic insufficiency of this magnitude of any duration would rapidly cause increasing left ventricular hypertrophy and obvious cardiac enlargement. In the absence of a heavy, boot shaped heart one can be relatively certain that the severe aortic insufficiency was of recent origin.

What disease processes that produce aortic

valvular insufficiency should we consider in this patient? The following would seem to require consideration.

1. Rheumatic aortic insufficiency.
2. Syphilitic aortic insufficiency.
3. Cystic medial necrosis of the aorta or Marfan's syndrome.
4. Congenital aneurysm of the sinus of Valsalva.
5. Bacterial endocarditis produced by staphylococci, pneumococci, gonococci, enterococci, or other pyogenic microorganisms.

I believe that we can omit from consideration milder forms of aortic insufficiency associated with hypertension or calcific aortic disease and the aging process in our thinking about this patient. Let us consider how each of these possibilities fits the present problem.

1. *Rheumatic aortic insufficiency*. In this area of the country, the finding of advanced rheumatic heart disease without a rheumatic history is quite common. There are, however, many features which suggest that this diagnosis is unlikely here. Striking rheumatic aortic insufficiency is rare under the age of 20 without obvious earlier cardiac manifestations. Rheumatic valvular lesions develop slowly. The apparent rapidity of the process without prior symptomatology and the normal heart size make rheumatic heart disease seem unlikely. Nevertheless, the fullness of the pulmonary artery segment which is suggestive of mitral disease and the late development of the apical murmur raise this possibility. I believe that the apical murmur can easily be explained on the basis of dilatation of the mitral valve ring with increasing congestive failure. I believe a rheumatic etiology does not explain this picture.

2. *Syphilitic aortic insufficiency*. In the colored race, the presence of wide aortic insufficiency should always suggest syphilitic heart disease. However, the age of this young woman is very much against this possibility. There is a 10 to 15 year latency between the primary syphilitic infection and the development of syphilitic aortic valvular disease. In the absence of congenital syphilis, the onset of severe valvulitis at age 21 would be most unlikely. Ninety per cent of patients with aortic in-

sufficiency due to syphilis are over the age of 30. Furthermore, the absence of any left ventricular enlargement, the lack of dilatation of the aortic arch, and the negative serologic tests for syphilis make me feel comfortable about dismissing this possibility. Elimination of these two common causes of aortic insufficiency leads us to consideration of more exotic types of aortic valvular disease.

3. *Genetic or metabolic defects.* Cystic medial necrosis of the aorta and great vessels was first described by Erdheim in 1929. This process is probably more common than previously supposed and is found at autopsy in most patients who develop dissection of the aorta. This disease process with loss of medial elastic fibers often leads to dilatation of the aortic valvular ring with moderate aortic insufficiency. Dissection with retrograde extension distorting the valve ring may also produce diastolic aortic murmurs.

Marfan's syndrome is a genetic defect characterized by abnormally long and thin extremities, fingers and toes, relaxation of ligaments, dolichocephalic head, kyphosis, funnel chest, ectopic lenses, and high arches. Defects in the medial elastic connective tissue of the aorta, dilatation of the aortic valvular ring, aortic insufficiency, and occasional aortic dissection are also observed. The absence of any of the stigmata of this disease process, its higher frequency in males over 40 years of age make me believe this process is unlikely. Nevertheless, an increased frequency of dissecting aneurysm has been reported with pregnancy, and the relative sudden onset of difficulties, the substernal pain suggesting dissection, and the method of death all seem compatible with the presence of a disease process of the media of the aorta. However, neither of these diagnoses would explain the striking anemia, and while I do not think we can categorically rule them out, medial disease of the aorta would currently seem unlikely to me.

4. *Aneurysm of the sinus of Valsalva.* Congenital defects in the sinus of Valsalva above the aortic valve ring occasionally undergo aneurysmal dilatations which may rupture into the right ventricle, the right auricle, or occasionally back into the left heart. The development of a rupture into

the right ventricle usually produces a murmur resembling that heard in patients with patent ductus arteriosus, while rupture into the right auricle may produce signs suggestive of aortic insufficiency. Such an accident could explain the enlarging right heart noted on x-ray. This diagnosis has considerable appeal. The probable rapid onset of aortic insufficiency and the relentless, progressive cardiac failure would seem compatible with such a diagnosis. However, again the significant anemia and fever would remain unexplained.

5. *Acute bacterial endocarditis.* Acute ulcerative bacterial endocarditis may involve normal aortic valves or an abnormal congenital bicuspid valve. This process can rapidly destroy or perforate aortic valve leaflets, resulting in the sudden appearance of aortic insufficiency. It has been my general dictum that the finding of aortic insufficiency in the presence of a normal sized heart should always suggest acute bacterial endocarditis. When one adds to this picture the presence of fever and significant anemia, the chances of the process being due to bacterial endocarditis are greatly increased. The microorganisms which commonly produce this acute destructive involvement of the valve are pyogens, i.e., microorganisms responsible for acute suppurative infections in man. Most commonly acute bacterial endocarditis is caused by pneumococci, staphylococci, gonococci, or beta hemolytic streptococci. These microorganisms have a significant predilection for the aortic valve. Valve perforation is common, the course is characterized by rapid congestive failure, and the classic peripheral findings of subacute bacterial endocarditis such as clubbing, petechia, findings in the urinary sediment, and splenomegaly are uncommon—perhaps because the development of significant vegetations which can produce embolization requires time, and this is a rapid disease process. Because this woman is pregnant, enterococcal endocarditis should also be considered. These microorganisms commonly initiate disease in woman from a genitourinary focus, and a number of cases have been reported during pregnancy.

How would such a diagnosis fit with the clinical picture reported here? It would

seem possible that the history of a preceding illness with cough might represent an unrecognized pneumococcal pneumonia. If so, the absence of positive blood cultures for pneumococci seems puzzling. The same is true of streptococcal or staphylococcal disease where negative blood cultures would be unusual. Gonococci are more difficult to culture and are more commonly missed in routine bacteriology laboratories. In 30 to 40% of patients with gonococcal endocarditis the aortic valve is involved. In a young colored woman such a possibility should be seriously considered. It is well to remember, however, that persistently negative blood cultures are found in 5 to 10% of patients with endocardial infections.

I believe a diagnosis of acute bacterial endocarditis of the aortic valve represents the best diagnostic possibility here. It would be my prediction that this patient will show evidence of a ruptured or perforated valve leaflet due to an acute bacterial process. The gonococcus is perhaps the most likely causative microorganism. The acute episode leading to her death may be due to rapid cardiac dilatation and congestive failure or coronary artery embolization. The patient may or may not show an underlying congenital aortic valve abnormality.

Postmortem Findings

Final Diagnoses:

1. Acute bacterial aortic valvulitis with rupture of one cusp.
2. Subendocardial myocardial infarction.
3. Pulmonary edema, acute.
3. Healing abscess of kidney.
5. Pregnancy with premature delivery by cesarean section after death.

Discussion

JOHN L. SHAPIRO: At autopsy there was acute bacterial endocarditis but we are not entirely certain about the pathogenesis in this particular case nor even absolutely certain of the identity of the organism responsible.

There was evidence of congestive heart failure and marked pulmonary edema with the alveolar spaces filled with a protein rich transudate. This process was uniform throughout and no evidence of a healing pneumonitis was found. There was also fluid accumulation within the serosal cavi-

ties as a manifestation of congestive heart failure.

The heart was most interesting. There was tremendous dilatation of both left and right sides, and I'm sure that the progressive dilatation had continued up to the time of death. Both the right and left sides were prominent. There were a few flecks of fibrin over the serosal surface of the pericardium in one area but this was not prominent. The heart weighed 400 Gm. and most of the increased bulk was in the muscle of the left ventricle. The whole right side was greatly dilated and the valves may have been relatively incompetent, but there were no lesions on the valves of the right side. The mitral valve also was greatly dilated but was not the site of any change otherwise. Careful search failed to reveal any vegetations on the mitral valve.

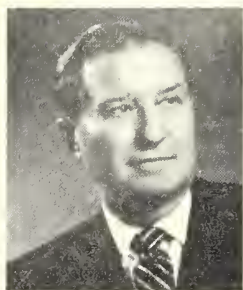
The aortic valve showed evidence of what I regard to be a longer term process as well as the acute one consisting of bacterial endocarditis. There were three valve cusps and the edges of these were rolled and thickened and there was slight retraction. I am sure there had been considerable insufficiency even prior to the rupture which was found in one valve cusp. The acute lesion consisted of numerous small vegetations encrusted about the free margins and also down the endocardium just around the valve. The microscopic sections show masses of leukocytes and fibrin, and gram positive cocci thought to be staphylococci are seen on the bacterial stain. The blood culture drawn from the left auricle did not grow out any organisms; cultures taken from the involved aortic valve showed predominantly a *Staphylococcus aureus*, though there were also a few colonies of *Streptococcus viridans* and *Alkaligenes fecalis*. So we are not certain as to the causative organism, though I tend to think it must be the *Staphylococcus aureus* in the light of evidence that we have presented. The changes which have been present for a longer period of time we tend to believe are due to rheumatic fever. There was thickening of the endocardium of the left atrium, but no diagnostic Aschoff bodies could be found on numerous histologic sections. Though conceivably some other process could be responsible for the valve

injury, rheumatic fever seems to be the best bet.

In addition, there was a massive necrosis of the subendocardial myocardium. The coronary ostia were demonstrated to be patent and no obstructions were found within these vessels. It may well be that numerous smaller emboli from the vegetations on the aortic valve were carried into

the smaller branches of coronary but these were not demonstrated on microscopic section. Another major factor perhaps in explaining the necrosis of myocardium is the complete insufficiency of the aortic valve. Certainly the coronary blood flow would have been greatly diminished, and I suspect that this played a major part in the myocardial infarction.

President's Page



RALPH O. RYCHENER,
M.D.

The American physician is in the political arena and, whether he likes it or not, he is a central figure in the 1960 Presidential campaign.

In the forthcoming election, health care will be an important issue. Federal health care ranks with foreign policy, defense, the agricultural surplus and domestic interest rates in political importance.

A recent issue of the AMA News offered a challenge to all physicians and their families to get busy now in activities leading up to the crucial general election in November. First thing of importance is to make sure that you and voting members of your family are eligible to vote, i.e., registered. During the past two decades, most Tennessee doctors of medicine have mistakenly assured themselves that they could discharge their full obligation as citizens merely by casting their ballots on election day. Physicians should do more than vote. They should identify themselves with the political party of their choice—contribute financially to the party of their choice—encourage patients and friends to register—keep informed on issues and candidates as well as to speak out for the candidate that they think is best fitted for public office.

Five physicians were among the signers of the Declaration of Independence—far more than might have been expected—and in the one hundred and eighty-three years since then, three hundred twenty-five of them have served the nation in the U. S. House of Representatives and thirty-seven have been members of the U. S. Senate. It is worth noting, physician participation in government hasn't ebbed appreciably, if the number of doctors holding seats in the 86th Congress is a reliable measure, for there are six of them—approximately an average representation.

Medicine's problems have not been due solely to apathy and reticence on the part of physicians, or to changing times. There can be little question that along with other groups, medicine has been the target of deliberate "attack." In consequence, doctors must prove the soundness of their positions on specific issues, reassume constructive leadership and work in persuading others to their point of view.

Physicians, and all others of like mind, must join together, and indeed already are joining together, for the preservation and strengthening of the system by means of which this nation achieved prosperity and world leadership, and without which it cannot hope to retain those blessings and that position.

Doctors should support good candidates. Law-makers are more and more frequently being called upon to consider proposals affecting health matters, and it is highly desirable that at least a few legislators have some professional training and experience in medicine that they can share with those who have not. Therefore doctors should seriously consider running for public office.

It is inexcusable for any physician to be uninformed on medical issues in the political and legislative field. The profession whose gift is an additional quarter century of life in just two generations, which has virtually conquered the infectious diseases, and which performs surgical miracles as a matter of routine, is equal to the day's political challenge.

Medicine has just won a great victory in the Congress where the Forand approach to health care for the aged was defeated. Similar proposals will be presented in the forthcoming Congress and doctors must be ready to meet the challenge. If the medical profession of Tennessee and of America does not become more active in government and politics and does not join in concerted resistance to further inroads on local authority and personal initiative, it will be doing less than citizenship demands of them.

Ralph O. Rychener, M.D.

President

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OCTOBER, 1960

EDITORIAL

SURGICAL TREATMENT OF EXTRACRANIAL OCCLUSIVE CEREBROVASCULAR DISEASE

During the past few years an extraordinary interest has developed in the diagnosis and treatment of extracranial occlusive cerebrovascular disease. When the concept was first promoted, extreme tardiness and caution was the rule. As is often true when new technics are evolved the pendulum has gone into orbit, and one has the feeling that less and less restraint and circumspection is currently influencing activity in this procedure.

Accordingly, it is with pleasure that one reads the recent symposium where various aspects of the problem are assayed.¹⁻⁵ The importance of diagnosis is emphasized. It is clearly necessary to pin-point the involved focus in the brain by careful and intelligent evaluation of clinical findings. If one can determine that he is dealing with an incipient or advancing stroke, his therapeutic approach should be quite different

than that when a completed stroke or infarct is being treated. The first group includes patients who present transient episodes of neurologic abnormalities resulting from a temporarily inadequate blood supply to a portion of the brain. These attacks usually last 15 to 30 minutes, are followed ordinarily by recovery and between attacks the patient is normal. About half of this type of patients will subsequently suffer a cerebral infarction. If the carotid arterial system is being rendered inefficient, the symptoms are usually unilateral weakness or numbness of one or both limbs, homonymous hemianopsia, unilateral decrease in vision and dysphasia, dizziness, headache, confusion and amnesia, in any of several combinations. If coma, and tonic-clonic motor activity are present, actual intracranial disease may be present. If the vertebral basilar arterial system is being obstructed, in addition to the above symptoms, dysarthria, diplopia, and poor vision throughout the visual field, and numbness around the mouth and tongue are also noted.

With these varied symptoms at hand, the examiner may be able to locate bruits in the neck and diminution in volume of pulsations over the great vessels in the neck and in the arms. Reduction in the pressure in the central retinal artery may be noted on the involved side.

Ordinarily an analysis of symptoms will give the diagnostic clue in 95 per cent of the cases. Confirmation may be obtained by use of contrast medium injections into the involved artery. Care must be exercised to not confuse neoplastic brain tumors, abscess, subdural hematoma and metabolic, toxic or degenerative processes.

When the index of suspicion is high, arteriography is necessary to determine the extent and exact location of the obstructing arterial lesion.

The following four questions, in the self-examination by the physician, should be answered in the affirmative if arteriography is to be employed.

- (1) Is the arteriogram likely to give essential information that is not already available?
- (2) Will the information probably permit more effective treatment of the patient?
- (3) Are the symptoms severe enough or

is the problem potentially serious enough to warrant a serious surgical procedure?

(4) Since arteriography ordinarily should not be done unless an operation is to be considered, are the patient's age and general health such that surgical intervention is justified?

The goal of surgery is prophylactic, in the hope of preventing further ischemic trouble for the patient. Therefore, a stenosis in an accessible blood vessel must be demonstrated before surgery is recommended, and the procedure must be undertaken before irreversible brain damage is sustained. If the situation warrants, the patient may be placed on anticoagulants, preferably intravenous heparin, while the surgical approach is being defined. As indicated the vertebral and carotid arterial systems may be visualized by injections of a 50 per cent solution of hypaque (Diatrizoate Sodium) into the left common artery, and into the left subclavian artery to opacify the left vertebral system. An injection into the right subclavian or innominate artery should opacify both the right carotid and vertebral systems.

The surgical technic for care of the obstructive artery may vary from thromboendarterectomy, to application of a by-pass by graft or by employment of a prosthetic patch.

At the Mayo Clinic, during the past eighteen months, 70 patients with a clinical diagnosis of cerebral-ischemia disease have been examined by arteriography. Pathologic vascular changes were found in only 75 per cent. Major intracranial disease were demonstrated in 14 per cent. In the remaining 61 per cent, major extracranial vascular disease was demonstrated. During the diagnostic procedure permanent complications occurred in 9 per cent and transient complications in 11 per cent. It may be important that six of 10 neurologic complications followed an injection into an occluded internal carotid artery.

The complications included cardiac failure, hemiparesis, aphasia, aggravation of an existing hemiparesis, pneumothorax, and brachial neuropathy.

Surgery was carried out in 28 patients. Two patients died, one of cerebral embolization, on the fifth postoperative day, the

other of a myocardial infarction, on the first postoperative day. Only 14 of the 28 patients were improved by the procedure employed. The follow-up was described as too brief to be completely conclusive.

It is evident, therefore, that caution and restraint should be exercised in the employment of arteriography for the diagnosis of extracranial occlusive cerebrovascular disease. It appears that the procedure may be tempting enough so that it will likely be employed unnecessarily in some, and to the detriment of others. Judgement and careful attention to the history of the patient, and careful neurologic examination may be a more logical and safer approach to the indications for the diagnostic and therapeutic procedure to be utilized.

A. W.

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HARPER'S STORY

A special supplement to the October issue of *Harper's* consists of a series of eight articles in addition to a foreword. The title is *The Crisis in American Medicine*. The last five or six present some of the problems facing medicine today and with a thoughtful approach. Any observant person recognizes these aspects of modern medicine, and any consistent reader of these editorial pages will recall that many of the items have been treated in a similar vein on this page during the past decade. Obviously, then, your Editor would not quarrel with much of this, and he has upon occasion pointed up the faults and foibles of the practicing physician, the medical educator, researcher and professor.

It is with portions of the Foreword, and the two first articles, *The Politics of Medicine* and *The Decline of the Healing Art* that your Editor wishes to take exception. The authors have done both the ill of this coun-

try and the public at large a great disservice through a vicious emphasis of half truths and uncommon practices, a misinterpretation of facts, as well as superficial analyses because of either gross ignorance or perfidious innuendo.

The hazard of a controlled press is well documented as it exists behind the Iron Curtain, and as it was under the Nazi regime. A controlled press molds the thinking of the reading public by repetition, whether of truth or untruth.

It is amazing to what an extent even a "free" press may reach the effect of a controlled press. The "herd" reaction of the writers of the press on the socio-economic facets of today's medicine is one of the phenomena of present-day writing. Generally, politicians, and writers for the public conspire by this mass hysteria to lay all of the difficult problems of modern medical care upon the heads of the medical profession alone.

Through the creation of an image of the doctor as a dishonest, superficial, out-dated, social climbing, money-grabbing charlatan, the press is doing the people of this country a grave disservice.

First, though the older generation individually does not swallow this vituperation, because of a solid relationship with its own doctors over the years, many young folks beginning a family unit are perplexed as to which way to turn, because of a suspicion of anything medical, thereby interfering with the well-cemented interpersonal relationship so necessary in times of crisis.

Secondly, this constantly reiterated grabbing for money will reflect itself more and more in ill health. Why should the patient who had "sight of the doctor's Cadillac parked at the curb" (quoted from Selig Greenberg) as he entered the office accept the advice of cholecystectomy for asymptomatic cholelithiasis after he hears the fee and, more importantly, the cost of hospitalization. He were a fool to believe that the physician has his good at heart if the news media keep referring to the "operating for money." It takes faith and trust to accept the costs referred to, let alone the discomfort and pain of the operation. And this distrust will not be allayed by the "specialist" of the well-touted clinic or group,

so glowingly described, because of the admitted impersonal scientific attitude of many of its employed professionals and a "take it or leave it" attitude.

Thirdly, the present attitude of the press may well influence the shortage of physician it laments and blames on "the most powerful trade association, (A.M.A.) in the world," in its alleged efforts to control the output of physicians so fees may be kept up. (The ludicrousness of this viewpoint is apparent to every medical educator who deplores the dearth of qualified applicants for admission to medical schools at the moment.) Over the years and as a member of an *admissions committee* your Editor has interviewed many applicants to medical school; furthermore student-instructor relationships for over thirty years permits at least a *little* knowledge of the medical students' thinking. My well formulated opinion based on this experience is that scientific curiosity is the basic drive in choosing medicine as a career. (Uncommon is the usually held belief that "doing good for human beings" is a major motivation. Money as a motivator obviously would not be admitted, but what young man with this as an objective would last through the rigors of a medical curriculum and three or four years of graduate training! There are easier ways of making money!) And how this basic curiosity persists throughout life? At the local medical meeting one need but to eavesdrop to find shoptalk and the "interesting case" occupying the conversation, and only occasionally yesterday's golf score or fishing trip, and rarely (to the distress of some) a Forand or like bill—even by the driver of a Cadillac! And what, may be asked, has this to do with the press and its disservice to the country? If scientific curiosity is the motivation for a medical career, one can readily see why the "cream of the crop" is by-passing medicine for electronics, "rocketeering," radioactive science and chemical engineering. With such stimuli why should a bright boy choose a medical career to be branded later as dishonest, superficial and money-mad? It were far better to get into electronics, take out a few patients and drive a Cadillac without criticism.

Medical care may well become mediocre in the next two decades for several obvious

reasons, some of which have been noted above. Though the press may have made great contributions to such a state, the doctor will continue to be the whipping boy.
R. H. K.

DEATHS

Dr. James C. Armstrong, 51, Waverly, died August 17 as the result of a heart attack. He was Mayor of Waverly.

Dr. Wyatt Henderson Avery, 80, Shelbyville, died September 1 at his home.

Dr. Max D. Lindsay, 52, Spring City, died September 14 at his office as the result of a heart attack.

Dr. Lloyd E. Dyer, Greeneville, died on September 14 from a heart attack.

Dr. William D. Martin, 74, Nashville, died September 8.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Nashville Academy of Medicine and Davidson County Medical Society

The Academy opened its fall program of meetings with a dinner at the Mid-State Baptist Hospital on Tuesday, September 13. The scientific program consisted of a panel discussion on "Some Concepts of the Diseased Gall Bladder and Its Complications." Panelists were Drs. Joseph McK. Ivie, James A. Kirtley, Jr. and Harrison Shull.

Roane County Medical Society

The Roane County Society has formed a trust which supports an annual \$1,000 scholarship at the University of Tennessee College of Medicine in Memphis. The award will be based on scholarship and need with preference being given to applicants of Anderson and Roane Counties. The scholarship is effective with the fall term, beginning in September.

The Society's Dr. Dwight E. Clark Memorial Lecture was presented by Dr. Charles E. Rea at the Jefferson Junior High School Auditorium in Oak Ridge on September 28. The title of the lecture was "Goiter and Man." The lecture is planned as a public lecture to be given each year. Leaders of the medical field will be re-

quested to address the public on some medical subject of general interest.

Anderson-Campbell County Medical Society

Members of the Society were the guests of Dr. and Mrs. J. M. Cox of Lake City for a picnic supper on August 25. About fifty guests were present and the guest speaker for the occasion was J. H. McCartt of Wartburg, District Attorney General of the 19th Judicial Circuit.

Chattanooga-Hamilton County Medical Society

The Society's September meeting was coordinated with the Tennessee Valley Medical Assembly conducted at the Read House in Chattanooga on September 26-27. A large number of Tennessee and out-of-state physicians attended the assembly. The speakers and the subjects presented were as follows:

MONDAY

- 9:00 EDWARD H. RYNEARSON, M.D., Chairman of Medical Section, Mayo Clinic, "*Learning to Like the Patient with Functional Disease*"
- 9:30 BENJAMIN FELSON, M.D., Prof. and Dir., Dept. of Radiology, University of Cincinnati, "*Some Fundamentals of Chest Roentgen Diagnosis*"
- 10:30 EDGAR L. FRAZELL, M.D., Asst. Clin. Prof. Surgery, Cornell University, "*The Role of Surgery in the Treatment of Cancer of the Head and Neck*"
- 11:00 IRVING H. LEOPOLD, M.D., Chairman, Dept. of Ophthalmology, University of Penn., "*Ocular Reflections of Systemic Disease*"
- 11:30 BENTLEY P. COLCOCK, M.D., Lahey Clinic, Boston, Mass., "*Problems in Gallbladder and Bile Duct Surgery*"
- 2:00 P.M. ARTHUR P. STOUT, M.D., Prof. of Pathology, Columbia University, "*The Effect of Cigarette Smoking on the Tracheobronchial Tree*"
- 2:30 AUSTIN T. MOORE, M.D., Orthopedic Surgeon, Columbia, S. C., "*Self-Locking Vitallium Hip Prosthesis*"
- 3:30 CHARLES HUGGINS, M.D., Director, Ben May Lab., Chicago, Ill., "*Treatment of Disseminated Mammary Cancer*"
- 4:00 ARTHUR C. DEGRAFF, M.D., Prof. Therapeutics, N. Y. University Medical Center, "*The Medical Management of Coronary Insufficiency*"
- 4:30-5:00 "*How I Do It*" Clinic

TUESDAY

- 9:00 THOMAS M. BROWN, M.D., Prof. of Medi-

cine, George Washington Univ., Washington, D. C., "*Rheumatism*"

- 9:30 I. W. GINSBURG, M.D., Prof. of Clin. Medicine, Temple University, Philadelphia, Pa., "*Medical Treatment of Bronchiectasis*"
- 10:30 H. HUDNALL WARE, JR., M.D., Prof., Obstetrics and Gynecology, Medical College of Virginia, Richmond, Va., "*Ectopic Pregnancy*"
- 11:00 ALEXANDER J. STEIGMAN, M.D., Prof. of Pediatrics, University of Louisville, "*The Common Anemias of Infancy*"
- 11:30 ROBERT GREENBLATT, M.D., Prof. of Endocrinology, Medical College of Georgia, "*Infertility*"
- 2:00 P.M. JOHN R. HELLER, M.D., Director, Memorial Sloan-Kettering Cancer Center, New York, "*Progress in Cancer Research and Control*"
- 2:30 FOUNT RICHARDSON, M.D., Past President, American Academy of General Practice, Fayetteville, Arkansas, "*The Training of the General Practitioner*"
- 3:30 RICHARD L. SUTTON, JR., M.D., Kansas City, Mo., Author, of Textbook, "*Diseases of the Skin*," "*Acne*"
- 4:00 GORDON McHARDY, M.D., Clin. Prof. of Medicine, Louisiana State Univ. Medical School, "*The Present Status of Diverticulosis and Diverticulitis*"
- 4:30-5:00 "*How I Do It*" Clinic

On September 21 in the Interstate Auditorium, the Chattanooga and Hamilton County Medical Society, with other interested groups, sponsored a speech by Dr. Genevieve Knight Bixler of Atlanta who spoke on "The Critical Shortage of Trained Nurses."

Knoxville Academy of Medicine

The Society met on the evening of September 13 in the Academy of Medicine Building. The scientific program consisted of a paper entitled "The Training of Interns and Residents" by Dr. Max Michels, Jr. of Jacksonville, Florida.

Memphis-Shelby County Medical Society

The Society met on July 5 in the Institute of Pathology Auditorium. The scientific program consisted of the following:

"Symposium on Chronic Ulcerative Colitis" moderated by Dr. A. J. Cummins; Diagnosis: Dr. Michael Gompertz; Medical Treatment: Dr. Richard O. Bicks; Surgical Treatment: Dr. Jack Greenfield.

Considerable interest was indicated by the questions and discussions that followed the presentation of the symposium.

Consolidated Medical Assembly of West Tennessee

Sixty doctors from West Tennessee met in Jackson on September 6 for the beginning of the fall programs by the Consolidated Medical Assembly. Dr. George Spangler of Humboldt, President, presided. Guest speaker was Dr. Charles Olim of the University of Tennessee School of Medicine at Memphis. His subject was "Vascular Grafting for Treatment of Aorta and Peripheral Vessels." Dr. Earl Williamson, Jackson, led the discussion.

NATIONAL NEWS

The Month in Washington (From the Washington Office, AMA)

The federal government is offering states liberal matching funds to provide health care for needy and near-needy persons 65 years of age and older. The program, which Congress approved in the bob-tailed post-convention session, is supported by the American Medical Association and allied health groups.

Congressional approval of the federal-state program marked a victory for the medical profession and a defeat for Democratic Presidential Nominee John F. Kennedy, the AFL-CIO and other advocates of the Social Security approach to the problem.

In a key vote on the issue, the Senate rejected by a 51-44 vote a Kennedy proposal that would have provided hospitalization and medical care for the aged under the Social Security system. The Kennedy plan would have required an increase in payroll taxes.

Republicans and Southern Democrats joined in the Senate to defeat the Social Security approach which was opposed vigorously by the medical profession. After voting down the Kennedy plan and a separate proposal of the Eisenhower Administration, the Senate passed a modified version of a House-approved program. The modifications, sponsored by Sen. Robert S. Kerr (D., Okla.) and others, provided for increases in the percentage of federal match-

ing funds and for administrative changes designed to facilitate state participation.

Under the legislation as signed into law by President Eisenhower, (1) substantial increases are authorized in federal grants to states to help with health care expenses of the 2.4 million persons on old age assistance rolls, and (2) Federal matching funds are offered the states to finance a new program of health care for an estimated 10 million aged persons who are not on relief but whose incomes may be inadequate to take care of all their health costs.

Start of the program was authorized for October 1 for those states where new state legislation is not required.

Administration of the program rests entirely with the states, subject to Federal approval in broad terms. It is up to each individual state whether it participates. Eligibility standards for beneficiaries and what health care services are provided are matters for the states to decide.

If a state so chooses, it can take care of all the health needs of an eligible beneficiary. The law authorized in-patient hospital services; skilled nursing home services; physicians' services; outpatient or clinic services; home care services; private duty nursing services; physical therapy and related services; dental services; laboratory and X-ray services; prescribed drugs, eyeglasses, dentures and prosthetic devices; diagnostic screening and preventive services, and any other medical care or remedial care recognized under state law.

For medical expenses of persons on old age assistance rolls, the federal government will contribute 50 to 80 per cent—with states with low per capita income getting the larger percentages of federal aid—of an amount equal to \$12 multiplied by the number of old age assistance recipients in a particular state. The matching formula will be the same for financing the health care of the near-needy but there is no \$12 limitation figure.

Health, Education and Welfare officials estimated first-year costs of the program at \$262 million—\$202 million federal and \$60 million state. Annual costs are estimated to rise by the end of the fifth year to \$340 million federal and \$180 million state. However, these estimates admittedly are no

more than educated guesstimates because so much depends upon state action.

It was estimated that maximum participation and a state contribution of \$7,000 would bring Tennessee \$2 Million in federal matching funds in the first year of the program. The medical-care-for-the-aged legislation was included in an omnibus measure titled Social Security Amendments of 1960. It also eliminated the age 50 requirement for eligibility for disability insurance benefits.

The Senate knocked out of the House bill's provision that would have brought physicians under Social Security coverage.

On other legislation of interest to the medical profession:

Congress passed bills authorizing expenditure of \$10 million of counter-part funds abroad to stimulate international research; authorizing up to 15 per cent of National Institutes of Health research grants for non-governmental medical research; directing a broad study of air pollution problems; requiring informative labeling on packages of hazardous substances for household use, and giving the government power to establish a tolerance on the amount of color additives that may be used in various products.

The Senate failed to act upon House-approved legislation that would have given physicians and other self-employed persons a tax break on income put into private pension plans.

72 Per Cent of Civilian Population Had Health Insurance in 1959

More than 127 million Americans—72 per cent of the civilian population—had health insurance at the end of 1959, the Health Insurance Council said in reporting the results of its 14th annual survey on the extent of voluntary health insurance coverage in the United States. The survey is based on reports from insurance companies, Blue Cross-Blue Shield and other health care plans. Coverage increased by 4.8 million during 1959 to reach a total of 127,896,000 persons with health insurance protection. Benefit payments by all health insuring organizations to help cover the cost of hospital, surgical and medical care amounted in 1959 to more than \$4.3 billion, up \$400 mil-

lion over 1958, said the Council. In addition, persons with loss-of-income policies received \$838 million in benefits from insurance companies to replace income lost through disability. Thus, a grand total of \$5,175,000,000 in health insurance benefits were distributed during 1959, up 10.9 per cent over 1958.

The HIC, a federation of insurance associations, said that based on the early trends for 1960 it estimated that as of June 1, some 130 million persons (73 percent of the civilian population) had hospital expense insurance, 118 million had surgical expense insurance, 84 million had regular medical expense insurance, 24 million had major medical expense insurance, and 44 million were insured against loss of income.

The Council said these figures also reviewed the breadth of health insurance protection which Americans have. The organization said as of June 1, more than 90 per cent of persons with health insurance have both hospital and surgical expense insurance, and 65 per cent have hospital, surgical and regular medical expense insurance, which helps pay for doctor visits for non-surgical care. Five years ago, the figures were respectively, 85 and 47 per cent.

A breakdown of the number of persons with health insurance at the end of 1959, by type of coverage and type of insuring organization, is as follows:

Hospital expense insurance was provided by insurance companies to 75,457,000 persons; by Blue Cross-Blue Shield and similar groups to 56,825,000, and by other health care plans to 4,861,000. After deducting persons protected by more than one type of insuring organization, the Council reported that 127,896,000 persons had hospital insurance, a 3.9 per cent increase over the 123,038,000 persons so covered at the end of 1958.

Surgical expense insurance by insurance companies covered 72,263,000 persons; by Blue Cross-Blue Shield and similar groups 48,843,000 and by others 5,813,000. Allowing for duplication, 116,944,000 persons had surgical insurance, a 4.9 per cent boost over the 111,435,000 persons of the year before.

Regular medical expense insurance accounted for 42,999,000 persons through Blue Cross-Blue Shield and similar groups;

38,227,000 through insurance company programs, and 6,347,000 through other plans for a total, eliminating duplications, of 82,615,000 persons, a 9.6 per cent climb over the 75,395,000 persons in 1958.

Major medical expense insurance coverage through insurance company programs increased 25.8 per cent, from 17,375,000 to 21,850,000 persons. Major medical insurance is designed to help absorb the cost of serious illnesses, and pays benefits ranging up to \$10,000 or \$15,000.

Loss of income found 32,869,000 persons covered by insurance company policies. The number of persons who work where there are formal sick leave payment arrangements brought the total figure to 43,169,000 persons, an increase of 3.1 per cent over the 41,870,000 of the year before.

MEDICAL NEWS IN TENNESSEE

Governor's Committee on "Employ the Handicapped"

The Chairman of TSMA's Committee on Industrial Health and Workmen's Compensation, Dr. George E. Duncan, pointed out the highlights of "Handicapped Week" on October 2-8. He reported that every doctor who conducts pre-employment examinations could materially help this program by stressing proper placement of handicapped individuals in industry. The aim of the Governor's Committee in Tennessee is to urge every employer to willingly hire a qualified and trained handicapped individual. Proper job placement is the secret of success in this program. Handicapped employees are trained to expect no special privileges in industry. If they are employed to do a specific job for which they are qualified, they are expected to do the work the same as a non-handicapped employee.

State Sees \$800,000 Under New Federal Medical Care for Aged Program

Tennessee's Finance Director said recently that the new federal medical care for the aged program may mean an additional \$800,000 a year for Tennessee. It was pointed out that Tennessee spends about \$800,000 annually for medical care for the

aged in the state. Preliminary studies of the new federal program indicates that the state may get an equal sum without any additional state contribution.

Governor Buford Ellington has named a committee to study the part which Tennessee can take in the new federal program. The Governor's committee will work with a similar committee from the Tennessee State Medical Association in working out the administrative details of the program. Representatives of TSMA will be the Executive Committee of the Board of Trustees, with the President of the Association and the Chairman of the Council on Aging.

Vanderbilt University School of Medicine

On September 20, Doctor Ernest W. Goodpasture died at the age of 73. He was born in Montgomery County, received his A.B. degree at Vanderbilt in 1907, and M.D. degree from Johns Hopkins University in 1912. Except for service with the Navy in World War I, Dr. Goodpasture's work was in research and teaching in pathology from 1912, at Johns Hopkins, Harvard, in the Philippines and in Europe, until becoming Professor of Pathology at Vanderbilt in 1924, a position he filled until his retirement in 1955. In addition, he was Dean of the School of Medicine from 1945 to 1949. Upon retirement he became Scientific Director of the Department of Pathology, Armed Forces Institute of Pathology in Washington. He returned to Nashville about a year ago.

He was a member of the Nashville Academy of Medicine and the Tennessee State Medical Association from his arrival in Nashville until he became a veteran member.

When measured in terms of basic and original concepts, Dr. Goodpasture probably has been the greatest scientist produced in Tennessee. His concept and demonstration of intracellular growth of viruses in the living cell, using the chick embryo, advanced the study of viral diseases and changed methods of producing vaccines for smallpox, influenza, yellow fever, Rocky Mountain fever and equine-encephalomyelitis. His contributions were recognized by honorary university degrees, the Kober Medal of the Association of American Physicians, the Sedgewick Memorial Medal of

the American Public Health Association, the Passano Foundation Award (1946) and the Research Medal of the Southern Medical Association (1937).

With all his fame and accomplishment, former students and associates will never forget his quiet manner, modesty, dry humor, and above all his readiness at any time to discuss and criticize the ideas and thoughts one may have brought to him for evaluation. Here was a man to be loved, respected and never to be forgotten.



Memorial gifts totaling \$2,900 have been allocated for cardiovascular research by the Middle Tennessee Heart Association to the laboratories of clinical physiology. The grant will be administered by Dr. Elliot V. Newman, professor of experimental medicine at Vanderbilt and director of the laboratories. The announcement of the grant was made by Dr. James Callaway, Nashville, Chairman of the Heart Association Board.

Postgraduate Course Conducted at South Pittsburgh

The Chattanooga Area General Practice Group presented a postgraduate course in South Pittsburgh on August 28. The program was sponsored by Eli Lilly & Company and 4 hours of credit was granted by AAGP.

Civil Defense Symposium Conducted

On September 15 at the New Southern Hotel in Jackson, the West Tennessee Academy of General Practice sponsored a medical symposium entitled "The Physician and Civil Defense." Following dinner, the featured speaker of the evening was Dr. Dale Alford, Representative, U. S. Congress from Little Rock, Arkansas. His subject was "Role of the Physician in Modern Society."

University of Tennessee College of Medicine

A total of 152 physicians attended postgraduate programs offered by the University of Tennessee Medical Units during the past fiscal year. The postgraduate department offered twelve courses for physicians.

Including Tennesseans, a grand total of 324 physicians attended the medical program.

★

Appointment of 12 Memphis physicians as assistants on the staff of the University of Tennessee College of Medicine was announced recently by Dean M. K. Callison.

They were: Dr. Edwin E. Blalack, department of radiology; Dr. John Robert Vincent, Dr. Charles E. Jabbour, Dr. Orin D. Butterick, Jr., Dr. James C. H. Simmons, Dr. Robert C. Reeder and Dr. H. G. Lanford, department of surgery; Dr. James G. McClure, Dr. Allen S. Edmonson, and Dr.

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executive vice president*

September 8, 1960

Ralph O. Rychener, M. D.
President
Tennessee State Medical Association
1720 Exchange Building
Memphis 3, Tennessee

Dear Doctor Rychener:

I would like to take this opportunity to thank you, the members of the Tennessee State Medical Association, and the staff members of your State Office, for their splendid cooperation during these past two years in our effort to defeat compulsory health insurance for the aged. Certainly, Medicine's hope for the future lies in the dedicated efforts of the many individual physicians and staff members who have worked so tirelessly to help preserve the practice of medicine as we now know it.

It would be my personal wish to be able to write to each individual member of your Association to express my appreciation for their cooperation in winning this important battle for American medicine, but I am sure you realize this task would be most difficult in the light of the many persons who participated.

May I, through you, the President of your Association, express the appreciation of the entire staff of the American Medical Association and my personal thanks. I hope you may find it convenient to relay this message to the members of your Council at its next meeting.

Again, thanks for your help.

Sincerely yours,

"Bing"

F. J. L. Blasingame, M. D.

FJLB:dh

Lewis D. Anderson, department of orthopedic surgery; Dr. Murray L. Fields, department of medicine, and Dr. Fred T. Grogan, department of pediatrics.

★

Courses for physicians will be offered by the postgraduate department of the University from September 22 through May 26, 1961. The schedule of physicians' courses are: Radiology, October 10-14, 1960; Allergy, November 3-4, 1960; Clinical Hematology, January 25-27, 1961; Fractures and Dislocations, March 1-3; Pediatrics, March 6-10; Clinical Electrocardiography, March 20-24; Obstetrics and Gynecology, April 5-7; Urinary Tract Diseases—Diagnosis and Treatment, May 4-5; Neurology, May 17-18; and Psychiatry, May 24-26.

The American College of Physicians

The Tennessee branches of two national medical organizations held their meetings in September at Castle in the Clouds Hotel, Chattanooga. The Tennessee Regional Meeting of the American College of Physicians held a day-long scientific program on September 17. Dr. Fay B. Murphey, Jr., Chattanooga, presided at the morning session and Dr. Clarence C. Woodcock, Jr., Nashville, presided in the afternoon. Dr. Edward C. Rosenow, Jr. of Philadelphia, Pennsylvania, Executive Director of the College, and Dr. Robert Wilson of Charleston, South Carolina, Regent of the College, were speakers at the banquet. The meeting was attended by seventy physicians.

The scientific program consisted of:

"Metabolic Studies in Pregnancy Complicated by Renal Acidosis" by Dr. Ralph Masie, Nashville; "The Use of Guanethidine in the Treatment of Hypertension," Drs. Wallace H. Hall, Jr., Samuel S. Riven and Joseph M. Merrill, Nashville; "The Clinical Spectrum of Idiopathic Myocarditis," Dr. Frank London, Knoxville; "The Rib Syndrome—(The Relationship of Costochondritis to Other Chest Wall Syndromes)," Dr. Maurice S. Rawlings, Chattanooga; "Some Observations Regarding the Prognosis of Pulmonary Emphysema," Drs. Joseph M. Merrill, and Robert A. Goodwin, Jr., Nashville; "Mechanism and Detection of Certain Drug Induced Hemolytic Anemias," Drs. A. P. Kraus, C. L. Neely, Thomas Carey and L.

M. Kraus, Memphis; "Studies of Amylase Activity in Pleural Effusion and Ascites," Dr. Norman Ende, Nashville; "The Diagnostic Value of the Combined Secretion and Cytology Test in Pancreatic Disease," Drs. Julio Goldenberg, Sidney Coleman, Alvin J. Cummins, Memphis; "Hyperuricemia and Gout," Dr. Fred Goldner, Jr., Nashville; "Early Diagnosis of Rheumatoid Arthritis," Dr. Benjamin J. Alper, Nashville.

The Tennessee Society of Internal Medicine held a business meeting on September 18. A panel discussion on "Estate Planning for the Internist" was a highlight of the program.

Dr. Cannon Elected President of State Hospital Association

Dr. Richard O. Cannon, Nashville, Director of Vanderbilt University Hospital, has been elected President of the Tennessee Hospital Association. Dr. Cannon has served as Chairman of the Commission on Third Party Payments for the Tennessee Hospital Association, and a member of the American Hospital Association's Commission on Third Party Payments.

PERSONAL NEWS

Dr. Glenn E. Horton, Memphis, has been appointed a member of the Section on Pulmonary Function Testing and on the Committee on Pulmonary Physiology of the American College of Chest Physicians.

Dr. Eben Alexander, Jr., Knoxville, has been appointed to the Board of Scientific Councilors of the National Institute of Neurological Diseases and Blindness.

Dr. J. R. Bowman, Johnson City, spoke on the subject "The Menace of Communism" at the monthly meeting of the Woman's Auxiliary to the Washington-Carter-Unicoi County Medical Society.

Dr. Elbert Claxton Cunningham has opened his office for the practice of medicine and surgery in Carthage. He will be associated with **Dr. Frank E. Rutherford**. Dr. Cunningham is a native of North Carolina.

Dr. Stanfield Rogers, Knoxville, has been appointed to the State Board of Basic Science Examiners.

Dr. O. M. Derryberry, Chattanooga, recently addressed the Chattanooga Optimist Club.

Dr. Thomas L. Buttram has announced the opening of his office for the practice of general surgery in Chattanooga.

Dr. F. T. Billings, Nashville, recently addressed the Senior Citizens Club.

Dr. John A Knapp, Elizabethton, has accepted an appointment to the resident staff of the department of neurology of the University of Virginia Medical School in Charlottesville.

Dr. F. Jones Smiley, Chattanooga, announces his association with **Dr. Thomas H. Curtis** in the practice of obstetrics and gynecology.

Dr. William H. Kilpatrick recently joined the staff of the Cumberland Clinic at Crossville. He is originally from Atlanta, Georgia.

Dr. H. Dewey Peters, Knoxville, recently attended a surgical conference at the Mayo Clinic in Rochester.

Dr. Blair D. Erb has become associated with the Jackson Clinic in Jackson. He will be connected with the department of medicine.

Dr. Amos Christie, Nashville, recently addressed the Vanderbilt Alumni of Chattanooga.

BOOK REVIEW

FRENCH'S INDEX OF DIFFERENTIAL DIAGNOSIS. Edited by **Arthur H. Douthwaite, M.D., F.R.C.P., Senior Physician, Guy's Hospital.** Eighth Edition, 958 pages, 774 illustrations. Baltimore: The Williams & Wilkins Co., 1960. Price \$24.00.

This is a timeless text whose continued popularity with British students and practitioners is reflected in its 48 year history through 8 editions. Only one of the consultants of the 1928 edition remains, and the signs of the times are further reflected in the change from ataxy to ataxia, from cardiac bruits to murmurs, from hiccough to hiccup, and wheal to weal. A host of neuropsychiatric listings are included in the present day edition, cerebrospinal fluid is given its own section, and certain of the x-ray illustrations have even become negative.

No references are given or are necessary in a volume of this authority and with such extensive illustration. There is a compulsively complete and cross-reference index of 150 pages. In this collection of signs, symptoms and their diagnostic possibilities, abnormal physiology and unusual laboratory values are not dwelt upon and therapy not at all, achieving a totally clinical diagnostic outlook not met in any other publication. Similarly unique is the inclusion of orthopedic, gynecologic, obstetric and surgical complaints and findings, resulting in a reference volume of use as broad as it is deep. This treasure trove of fascinating illustrations and bits of clinical lore, from blue urine to strangury, has a place on anyone's shelf.

ANNOUNCEMENTS

Cardiac Day

Middle Tennessee Heart Association

CARDIAC DAY, a one-day symposium on the problems of heart disease, will be presented on Thursday, November 17, by the Middle Tennessee Heart Association in cooperation with the Tennessee Department of Public Health and Vanderbilt University School of Medicine.

Doctors throughout the state are cordially invited to attend CARDIAC DAY which will be held at Vanderbilt University Hospital. Six out-of-state physicians, all nationally recognized for their knowledge and ability in the cardiovascular field, will appear on the program. Subject of the morning session will be "Aspects of Hypertension," and the topic for the afternoon will be "Myocardial Infarction."

A "dutch-treat" dinner, at which Dr. Tinsley Harrison, Professor of Medicine at the University of Alabama School of Medicine, will serve as guest speaker, will conclude the day's program.

Booklet by the Heart Association

"Heart Disease Caused by Coronary Atherosclerosis" uses case histories to explain the process of recovery from a heart attack and the nature and treatment of angina pectoris. It includes a description of the atherosclerotic process that underlies both heart attacks and angina pectoris.

The Middle Tennessee Heart Association will gladly make sufficient copies of this pamphlet available to you for distribution to your patients or their families—at no charge, upon your request.

A.M.A. to Stage Second National Conference on the Medical Aspects of Sports

The Second National Conference on the Medical Aspects of Sports under the auspices of the AMA Committee on the Medical Aspects of Sports, will be held in Washington, D.C. at the Statler Hotel on November 27. The Conference will immediately precede the annual Clinical Meeting of the A.M.A., November 28-December 1.

At the first meeting on this subject at Dallas, in November, 1959, the Second Conference will cover a wide range of subjects. Included will be papers, panels, and discussions relating to training and conditioning, prevention of injuries, recognition referral and treatment of injuries, the psychology of sports participation and other subjects.

Those interested in receiving announcements concerning the Conference should address The Secretary, Committee on the Medical Aspects of Sports, American Medical Association, 535 North Dearborn, Chicago 10, Illinois.

Middle Tennessee Medical Association

The Middle Tennessee Medical Association will meet in Carthage on November 17th. The meeting will be presided over by Dr. Arthur McMurray, Clarksville, President. Dr. Thayer Wilson of Carthage is the President-Elect. The complete program will be announced.

Emory University School of Medicine Ophthalmology Department

The Department of Ophthalmology, Emory University School of Medicine will sponsor a post-graduate course in ophthalmic surgery to be held on December 1-2, at the Grady Memorial Hospital, Atlanta. Dr. Frank D. Costenbader, Senior Attending and Chairman of the Department of Ophthalmology, Children's Hospital, and Senior Attending Ophthalmologist, Washington Hospital Center, Washington, D.C.; Dr. John M. McLean, Professor of Ophthalmology, Cornell University School of Medicine, New York, and Dr. Harold G.

Schie, Professor of Ophthalmology, University of Pennsylvania School of Medicine, Philadelphia, will be the guest lecturers. Diagnostic principles and technics, preoperative and postoperative management, and surgical principles and technics in extra-ocular muscle surgery, cataract surgery and glaucoma surgery will be discussed by this distinguished faculty.

American Goiter Association, Inc.

The American Goiter Association again offers the Van Meter Prize Award of \$300 to the essayist submitting the best manuscript of original and unpublished work concerning "Goiter—especially its basic cause." The award will be made at the annual meeting in Philadelphia on May 3-6, 1961.

The competing essays may cover either clinical or research investigations, should not exceed 3,000 words in length and must be presented in English. Duplicate typewritten copies, double-spaced, should be sent to the Secretary, 702 Madison Avenue, Albany 8, New York, by January 1, 1961.

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A 30 year old married physician. Protestant. Graduate University of Tennessee. Surgeon, desires to locate in community of 15,000-25,000. Will consider associate or assistant practice. Available July 1961. LW-335

A 46 year old married physician. Baptist. Graduate Tulane Medical School. Retiring from military service, desires to establish ob-gyn practice in Tennessee community of 50,000-100,000. Prefers clinic or associate practice. Available fall 1960. LW-364

A 31 year old physician, married. Methodist. Desires to establish ob-gyn practice in west or middle Tennessee community of 30,000-150,000. Graduate of Vanderbilt University. Will consider clinic, associate or assistant practice. Available July 1961. LW-366

A 32 year old married physician. Baptist. Graduate Medical College of Alabama. Desires clinical, assistant or associate practice in pediatrics in Tennessee community of 25,000-100,000. Available immediately. LW-371

A 31 year old married physician. Catholic. Graduate University of Tennessee. Board eligible in general surgery. Desires clinical practice in general surgery in Tennessee community of 25,000 or over. Available immediately. LW-372

A 42 year old married physician. Protestant. Graduate University of Basel, Switzerland. Desires group, partnership or private practice in radiology in east or middle Tennessee community. Diplomate of the American Board of Radiology. Available immediately. LW-376

A 29 year old married physician. Methodist. Graduate Louisiana State University. Wishes to establish general practice with interest in ob with associate established GP in Tennessee community of 5,000 to 25,000. Available July 1961. LW-378

A 30 year old married physician. Methodist. Graduate of University of Tennessee. Desires to establish general practice in Tennessee community of 5,000 or over. Presently with USAF, would consider assistant or industrial practice. Available September 1961. LW-380

A 32 year old married physician. Methodist. Graduate Medical College of South Carolina. Specializes in general surgery, with limited orthopedics. Desires to locate in Tennessee community 25,000-50,000. Will consider clinical, assistant or associate practice. Available December 1960. LW-381

A 32 year old married physician. Church of Christ. Graduate of University of Tennessee. Desires to establish practice in ophthalmology, Tennessee community of 20,000 or over. Will accept clinical, assistant or associate practice. Available May 1961. LW-388

Physicians Wanted

Middle Tennessee town, population 1,000 with trade area of 8,000, located 72 miles from large city desires general practitioner for completed \$42,000.00 clinic. Approximately 32 miles from 3 other hospitals. Agriculture and small industry. Excellent high school and elementary schools. Adjacent to one of the state's finest recreational areas. PW-123

Physician in west Tennessee town of 500,000 desires an associate, age 28-35, for internal medicine practice. Office space and some equipment provided. PW-126

Physician in east Tennessee town of 30,000 desires an associate general practitioner and surgeon. Office space and some equipment provided. PW-127

Northwest Tennessee community of 1200, trade area 3,000. Desires general practitioner. Nearest hospital 16 miles. Office space available. Near large recreational area. PW-129

Southern Tennessee community of 1,000 desires general practitioner to replace physician who is leaving community to join hospital group. Office space available. Good location. PW-131

Pediatrician with 2 years internship and 1 year residence training needed in middle Tennessee community with new hospital, and office building located near hospital. Office furnished except for doctor's private office and examining rooms. PW-317

Small southern Tennessee community of 700 in need of general practitioner to replace retiring M.D. Nearest hospital 15 miles. Close to large missile base. Large trade area. Good location. PW-142

General practitioner interested in preventive and occupational medicine needed in industrial plant in east Tennessee community of 28,000. Office space and equipment furnished. Regular working hours, good salary, fringe benefits. PW-145

Small southern Tennessee Community of 500 in need of general practitioner. No other physician in community. Office space and some equipment available. Hospital 13 miles. PW-147

Small southern Tennessee community of 1,200, with trade area of 20,000, desires general practitioner. Two other physicians in community. Office space and housing readily available. PW-151

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Journal of the Tennessee State Medical Association

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Number 11

The advances which have been made in diagnostic technics and the experience gained in the modern management of ulcers of the leg have been well summarized in this paper. Surely prolonged temporizing with the larger lesions is not worthwhile.

Management of Chronic Leg Ulcers*

W. ANDREW DALE, M.D., Nashville, Tenn.

The occurrence of lower leg ulcers is widely known and indeed is so generally recognized as commonplace that there is at times acceptance of their chronicity and pessimism regarding their cure. It has been estimated that there are 300,000 to 400,000 such cases in the United States.¹³

Earliest medical history indicates concern with these, Hippocrates supposedly having first noticed the association of varicose veins with leg ulcers. Writings of the Roman physicians about the time of Christ dealt with roller bandages and plasters of various types for leg ulcers, and of methods of management of varicosities by blunt hook avulsion as well as by the actual cautery. During the period of Galen's theory of humors in the first 15 centuries A.D., it was generally believed that a leg ulcer permitted noxious materials to escape and that healing would therefore be risky to the patient's general health. (An occasional patient today expresses a similar belief!)

During the early 19th century increasing emphasis on the associated varicose veins led to general use of the term "varicose ulcer." However, in 1867, John Gay wrote that "ulceration is not a direct consequence of varicosity but of other conditions of the venous system of which varicosity is not infrequently a complication," and introduced the term "venous ulcer." Little further advance occurred until Dr. John Homan of Harvard Medical School presented his studies of the pathology of deep venous

thrombosis and showed that recanalization with destruction of valves was very common following such thrombosis. The later introduction of phlebography by Dos Santos and venous pressure studies in the leg and foot at rest and exercise have more recently added to our knowledge of the pathologic physiology of these lesions.

Etiology

The occurrence of trauma or minor infection to an area of poorly nourished abnormal ankle skin is usually associated with poor healing and often with continued ulceration. While there are several common as well as many rare causes of chronic ankle ulcers (Table 1), it is particularly pertinent to discuss briefly the development of these following venous thrombosis.

Table 1.

ETIOLOGY OF LEG ULCERS		
	Common Causes	Rare Causes
Venous:	post-thrombosis	A-V fistula
	? varicose veins	post-injection pressure valve anomalies
Arterial:	insufficiency	pernio
Infection:	pyogenic due to neglect and poor hygiene	synergistic gangrene
		syphilis
		tuberculosis
		fungus
Bone:	osteomyelitis	adherent fracture site
		Paget's disease
Carcinoma:	primary	Marjolin's ulcer
Radiation:	dermatitis	carcinoma
Systemic Disease:		anemia
		ulcerative colitis
		diabetes
		pellagra
		neurologic
Mixed Causes:		

*Presented before the Middle Tennessee Medical Association at Clarksville, May 19, 1960.

The occurrence of leg complications many years after a bout of deep venous thrombosis is widely recognized. The incidence of later complications after a bout of phlebitis varies. Examination of phlebograms shows convincingly that almost all deep veins recanalize later although evidences of wall and valvular damage are common. Furthermore, delayed films made after leg exercises often show failure of passage of the dye on up toward the heart as an indication of functional insufficiency of the deep veins.

Careful historical inquiry often brings out swelling of the leg or pain after childbirth, operation or injury that may not have been specifically ascribed at the time to "phlebitis." Phlebographic studies on some ulcers without history of previous phlebitis indicate that the patient either has forgotten when such occurred or it was of no clinical significance and went unrecognized. These considerations make the true incidence of post-phlebotic complications difficult to assess.

While primary varicose veins may occa-

sionally lead to actual ulceration, the vast majority of these are secondary to previous venous thrombosis with secondary associated varicose veins. In other words ulcer is rarely, if ever, due to varicosities alone.¹⁰

Other less common causes of ulceration of the lower leg may be overlooked chiefly because they are not considered. For instance, the pain associated with the ulcer may override symptoms of arterial insufficiency and therefore lead to incorrect management until the vascular lesion is recognized (Fig. 1). Unilateral leg signs should lead to consideration of local causes of ulceration such as unusual infections, arteriovenous fistula, congenital valve anomalies of deep veins, and underlying osteomyelitis. The occasional development of epidermoid carcinoma in the skin surrounding an old ulcer should be recalled along with the occurrence of dermatitis due to local radiation therapy which goes on to malignant changes if the damaged skin remains for periods of many years. Table 1 may therefore serve as a check list of common as well as some unusual causes of ulceration of the lower



FIG. 1. Ulcer due to minor trauma, infection and neglect in a leg with peripheral arterial insufficiency. Functional phlebogram was normal. (a) Shows preoperative large medial ankle ulcer; (b)

Ulcer completely healed after autogenous venous bypass graft from common femoral to popliteal artery followed by excision and skin graft to ulcer.

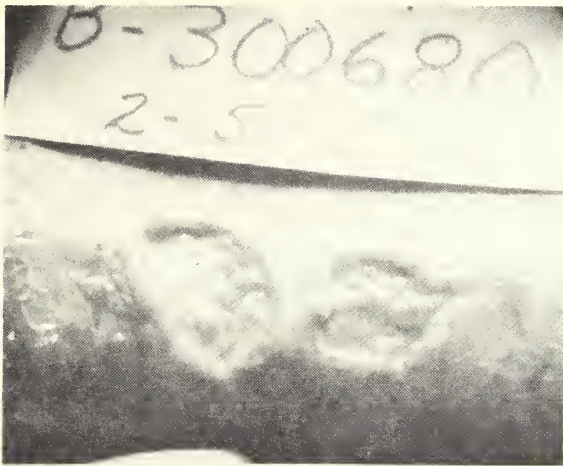
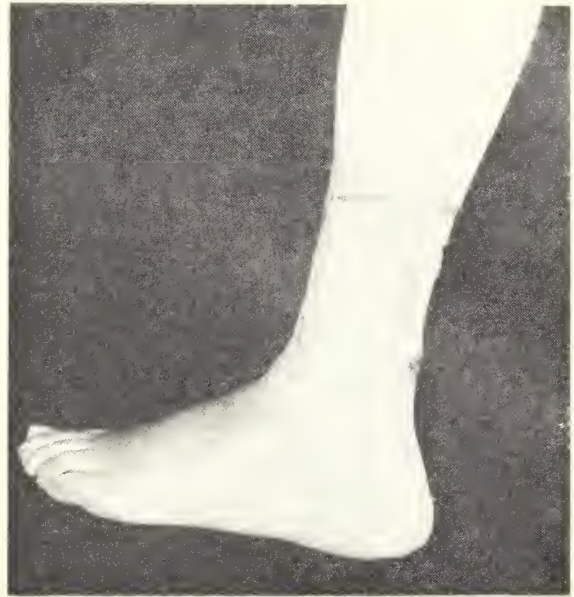


Fig. 2. Unusual multiple radiation ulcers. (a) Preoperative appearance of ulceration with surrounding indurated exematous skin; (b) Postoperative healing four months after excision and grafting.



leg (Fig. 2) whose identity is chiefly dependent upon consideration of the disease as a diagnostic possibility.

Diagnosis

The general approach to diagnosis is outlined in table 2. In addition to the usual

Table 2

DIAGNOSIS OF LEG ULCERS

1. History and general examination
2. Physical characteristics of the ulcer and venous system
3. Peripheral pulses and oscillometry
4. In some: functional phlebography
 - biopsy
 - culture
 - blood analysis
 - x-ray bones
 - arteriography

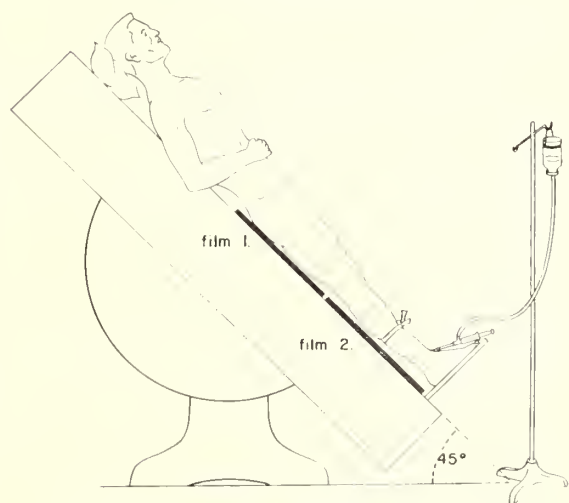
history and general examination of the patient the particular physical characteristics of the ulcer, the venous system of the legs and the skin of the legs themselves often point immediately to the cause of the ulceration. The arterial system should at the same time be evaluated by examination of the peripheral pulses and by oscillometry and arteriograms if needed. Cultures are made particularly to identify sensitivity to antibiotics in the event that any form of surgical treatment is needed prior to complete healing. In the event that the ulcer is of considerable age or in any way suspicious of carcinoma, a biopsy is made from several different points on the edge of the ulcer. Suitable x-ray examinations of bone and blood studies for anemia, diabetes and

other systemic diseases are undertaken.

Functional phlebography. X-ray examination of the veins containing radiopaque substance is a procedure which did not prove of much practical value until it was recognized that, (1) the horizontal position of the patient led to diagnostic errors due to rapid passage of dye and to layering, and that (2) exercise clears normal veins of dye in a short time. Development of a technique^{6, 18, 20} that takes the position and exercise factors into account has now led to an examination not only of venous anatomy but also of venous function.

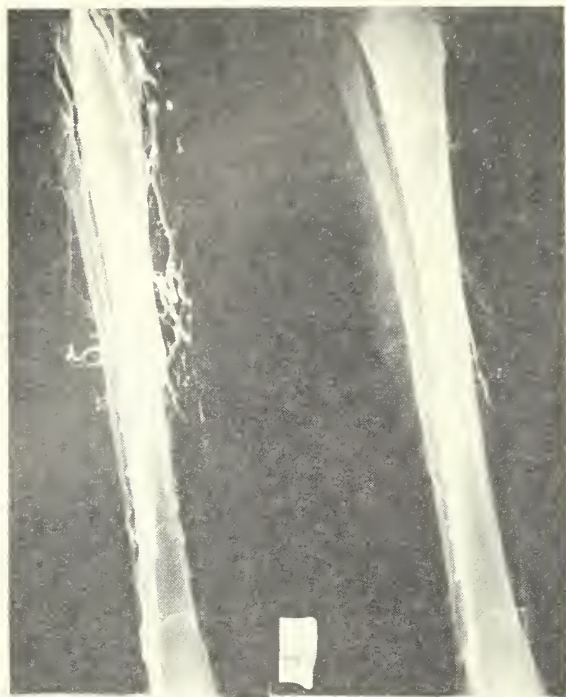
The technic illustrated in figure 3 shows

Technic for Functional Phlebography



1st Films after injection 40cc. 50% Hypaque (10-30 sec.)
2nd Films after 10 toe-lift exercises (40 sec. after 1st films)

FIG. 3.



PRE-EXERCISE

POST-EXERCISE

FIG. 4. Functional phlebography. Technic of 45 degree elevation with injection into foot or ankle vein distal to a venous tourniquet about the ankle; *Pre-exercise*, normal pattern of deep veins and valves immediately following injection of 40 cc. of 50% Hypaque; *post-exercise*, normal clearing of almost all Hypaque from deep veins following exercise.

the patient reclining against an x-ray table elevated 45 degrees from the horizontal. An intravenous infusion is shown running into a vein on the dorsum of the foot or into the greater saphenous vein at the ankle by means of a small polyethylene cannula which is placed percutaneously through a needle. Alternatively, a "cut-down" may occasionally be needed for a vein which is difficult to cannulate.

Forty cc. of 50% Hypaque is injected into the vein (with a venous tourniquet placed proximal so that the dye is forced into the deep venous system). It may require 15 to 60 seconds for injection into a small vein. Nevertheless, so long as the patient does not exercise, the majority of the dye will remain in the lower leg veins with some extending up into the thigh. Films are exposed with one below the lower leg including the ankle and another behind the knee and thigh.

The patient now lifts himself on the toes so the lower leg is exercised ten times over a period of 40 seconds and a second set of

two films is made. Figure 4 illustrates such a phlebogram which is considered to be normal. This film of the veins of the lower leg made at the conclusion of injection of the dye shows smoothly outlined deep veins with many sharply defined valves. Figure 3 also illustrates the same leg after the patient had elevated onto the toes ten times over a period of 40 seconds. Almost all the dye has been cleared by the exercise, although traces remain in the valve cusps. This functional portion of the phlebogram indicates that exercise at once forces the dye into the proximal venous system. Comparison of these normal films with figure 5 shows in the latter varicose saphenous vein with damaged deep veins which fails to clear dye following exercise. Vein removal without later external support will probably lead to development of new superficial "blowouts."

Functional phlebography is a relatively simple procedure which can be conducted



PRÉ-EXERCISE

POST-EXERCISE

FIG. 5. Abnormal, post-phlebotic veins. *Pre-exercise* shows absence of deep vein valves plus varicose superficial veins; *post-exercise* shows failure of clearing of dye by deep veins in indicating venous insufficiency.

without hospitalization and it furnishes valuable information about the status of the anatomy and function of the deep veins of the leg as well as of the superficial veins and of communications between the two systems. Unsuspected situations disclosed by phlebography include varicose saphenous veins not seen in obese legs at physical examination, varicose saphenous vein remaining after history and incisions indicated removal, anomalies of the valves of the deep venous system, diseased deep veins in the absence of history of thrombophlebitis, presence of large incompetent perforating communicators between the systems and the finding of a normal saphenous vein with diseased deep veins where saphenous stripping should not be done.

Pathophysiology

Leg ulcers ordinarily form as a result of a break in the skin from minor trauma whose healing in abnormal skin is often retarded further by the patient's well meaning but faulty management of the local lesion so that an increasing area of skin becomes necrotic. The relation of the skin ulcer to previous damage of the vein by thrombosis is generally accepted although the exact mechanism may not be completely understood. Post-thrombotic studies in animal veins by direct examination and in human veins by phlebographic examination indicate that the early thrombosis begins to organize and eventually recanalizes in most instances. Indeed this appears to be a major difference between the end results of thrombosis in the venous and arterial systems, since thrombosis in the latter is usually final in the particular vessel involved and new blood supply is determined by collateralization. On the venous side, however, the early forming collaterals tend to gradually disappear as recanalization of the originally thrombosed vein occurs. Examination and phlebotic studies show that many months to years following thrombosis the vein is scarred and irregular on its intimal surface and that there has been loss of the valves which normally support the column of blood and assist its return toward the heart. The resultant venous hypertension in the extremities is well documented.

Measurements of venous pressure in the superficial veins of the lower extremities have shown that the peripheral muscle pump serves to decrease sharply the venous pressure during and immediately following exercise with a slow return to the original standing pressure level when the veins are normal. With primary varicose veins there is a considerably lesser decrease in pressure during walking although some is expected and there is a rapid return to standing pressure. Persons postphlebotic show little or no decrease in venous pressure upon exercise and any small decrease immediately returns to the original standing pressure following exercise. (In the deep popliteal and femoral venous systems there are no particular changes in pressure following exercise in either normals, primary varicose veins or in post-phlebotic legs.) These findings appear to indicate that the post-phlebotic person suffers from transmission of the deep venous pressure to the superficial veins at all times and that exercise does not relieve this. There is *ambulatory venous hypertension*.¹³

Such studies imply that the perforator veins communicating between the deep and superficial systems of the leg are important in transmitting the deep venous pressure to the superficial system. Dodd and Cockett⁷ have particularly emphasized the importance of thrombosis and recanalization in valvular destruction of the communicating perforating veins in the development of skin changes going on to ulceration following venous thrombosis. They ascribe the impaired nutrition of the ankle skin in large measure to the venous hypertension due to incompetent perforating veins in that area and believe that failure to obliterate the incompetent perforators at the time of operation for such ulcers is the reason for their recurrence. They therefore focus considerably more attention upon the perforating communicators as the chief immediate cause of ankle ulcers than has been generally thought. If their contention be true, considerable shift of emphasis of management toward operative obliteration of the lower leg and ankle perforators should occur.

The deep lymphatics are normal although the superficial lymphatics are often oblit-

erated locally about an ulcer.¹² (In this connection it should be noted that a major characteristic of primary lymphedema is the absence of ulcer of the skin. This lack of ulcers in the presence of lymphatic hypertension and valvular failure rules against the importance of lymphatic dysfunction in the development of ulceration.) Thus the obliteration of superficial lymphatics about leg ulcers found by Moyer and Butcher¹⁶ may have been effect rather than the original cause of the ulceration. The accessory factor of abnormal arteriovenous communications to varicose veins as denoted by increased venous oxygen content near an ulcer, by rapid filling of venous channels after arteriography and direct observation has been noted by Fontaine¹⁰ and Gius¹¹ who believe that multiple factors result in the post-phlebitic syndrome.

Plan of Management of Leg Ulcers

Firm establishment of the correct etiologic diagnosis combined with understanding of the physiologic and pathologic changes involved in ulceration of the lower leg will lead to a general plan of management which can be individualized to suit the particular patient. Development of an overall treatment program from the start will avoid overlooking any of the details which add up to successful management. Repeatedly encountered instances of failure of treatment when one phase or detail is emphasized and others neglected indicate the necessity for careful attention to each part of the overall scheme.

General measures. The compensation of reversible lesions elsewhere whether or not they effect the involved legs is an obvious necessity. Of particular importance are measures to rid the patient of edema from other causes such as heart failure and low serum proteins. The association of obesity with difficulty in management of post-phlebitic legs is commonly recognized. Such patients should be encouraged in every way possible to reduce his weight (and an occasional one may be persuaded to do so). Arterial lesions such as atherosclerotic occlusions and arteriovenous fistulas must be managed by direct arterial surgery prior to grafting the ulcer. Generalized diseases such as diabetes and specific infections such

as syphilis and tuberculosis require no further comment here.

Specific measures. In table 3 are outlined

Table 3
MANAGEMENT OF LEG ULCERS

- | | |
|---|---|
| A. <i>General:</i> (treat reversible disease) | |
| 1. Edema of other causes (heart failure, low proteins) | |
| 2. Obesity | |
| 3. Diabetes | |
| 4. Arterial lesions (atherosclerotic blocks, A-V fistula) | |
| 5. Specific infections (syphilis, tuberculosis, fungus) | |
| B. <i>Specific:</i> | |
| 1. Reduction of "ambulatory venous hypertension" and control of edema | |
| a) Rest with leg elevation (bed, tip-back chair) | |
| b) External leg support: | elastic bandaging over pad
Unna paste boot
elastic stocking
Aero pulse boot
Wood hydrostatic stocking
Weinberg Circulator
Jobst apparatus |
| 2. Local treatment of ulcer | |
| a) Control infection: | rest
compresses
antibiotics
debridement
nonirritating dressings |
| b) Control dermatitis: | bland ointment
antipruritic (Tem-aril)
fungicide |
| 3. Surgical treatment | |
| a) Varicose veins removal: | greater saphenous system
lesser saphenous system
perforating veins |
| b) Deep vein ligations | |
| c) Excision and grafting of ulcer: | at once
delayed |
| d) Sympathectomy (for hyperhidrosis) | |

specific measures aimed at effecting and maintaining cure of the ulcerated leg.

1. Reduction of "ambulatory venous hypertension" and control of edema can be best accomplished by rest with the legs elevated to the level of the heart and preferably above that level. Placement of books or blocks beneath the foot of the bed to elevate this 6 inches is well tolerated by most patients. However, since the majority of people neither need nor will accept bed rest for the healing of an ulcer, particular attention should be paid to the method by which they sit. Patients commonly sit in a chair with the feet elevated upon a stool or sit or recline on a sofa or davenport with

the feet elevated at the level of the body. While this reduces the venous pressure in the legs to a considerable extent, it is not nearly as much as if the legs were elevated to the actual cardiac level or above. This can easily be accomplished in an aluminum tip back chair which is obtainable through commercial furniture stores. This lightweight aluminum chair is useful either out-of-doors or inside and is quite comfortable for talking, reading or other indoor activities. It is considerably better than the usual method of elevating the legs on a stool.

External support of the leg can be accomplished in a number of ways most of which are generally familiar. Several points are worthy of emphasis. Whatever external support is used should be applied as soon as the patient arises in the morning without waiting for an hour or more while breakfast or other early morning activities are carried out. Elastic bandages of the "Ace" type are inexpensive and easy to apply. There are a number of elastic stockings available commercially which vary from poor to excellent support depending on the stockings themselves as well as upon the fit. While the average patient will select a stocking which supplies good pressure at the upper calf, there is often looseness at the ankle and in the region of the ulcer where pressure is particularly important. The use of a custom fit, two-way stretch, porous, elastic stocking of knee length* is usually better than the usual stocking obtained commercially.⁴ Many of the latter are also made to extend above the knee and require a rather heavy garter belt or girdle whereas there is ordinarily little need for elastic support above the level of the knee.

More elaborate forms of external support are available for the occasional patient requiring such special care. The Aero-pulse boot¹⁹ is a particularly effective external pressure device useful for the occasional patient who develops recurrent ulceration repeatedly unless proper external support is used. This consists of an air bladder encased in a custom fit canvas legging with an automatic valve arrangement pre-set to furnish 40 mm. mercury external pressure.

*Obtainable by individual order from the Jobst Institute, Inc., P. O. Box 653, Toledo 1, Ohio.

Table 4

COMMON ERRORS IN MANAGEMENT OF LEG ULCERS AVOID

strong antiseptics directly into ulcer
deep vein ligations
prolonged standing or lack of external support
non-operative management of large ulcers
grafting without excision

This has the effect of placing constant pressure outside the entire leg so that walking or other exercising forces blood centrally and so that there is firm pressure against the tissues constantly. This legging is cumbersome and is hot in the summer and is cosmetically unacceptable to most women, yet it does furnish better external support than any other currently available device and for this reason has been termed the "ace in the hole" for the ultimate control of an extremely difficult ulcer.

Recently a new type hydrostatic stocking has become available commercially.²² This device is a zippered legging containing a water filled bladder connected by a flexible tube to a small water reservoir suspended beneath the axilla. There is thus a constant water pressure exerted upon the leg equal to the distance between the leg and the heart (since the axillary reservoir bag is at the cardiac level) so the patient has a higher pressure when walking and a somewhat lower pressure when sitting.

At least two apparatuses designed to "milk" edema out of an extremity are currently available. The Weinberg circulator** and the Jobst intermittent compressor*** consist of plastic encasements for the entire lower extremity (or for the arm in post-mastectomy lymphedema). Air cells are progressively pressurized by an attached electrical device containing a gauge by which the external pressure can be varied. The overall effect of this mechanism is to milk fluid from the extremity toward the heart by mechanical massage. The presence of cellulitis or lymphagitis with their implications of bacteria within the tissues are contraindications to use of the circulators

*Obtainable from David Clark Co. Inc., 360 Park Ave., Worcester, Mass.

**Obtainable from Circulator Therapeutics, 235 West Merrick Rd., Freeport, N. Y.

***Obtainable from Jobst Institute, Inc., P. O. Box 653, Toledo 1, Ohio.

but otherwise edema may be quickly reduced by repetitive treatment.

2. *Local treatment of the ulcer.* Control of infection must be undertaken immediately if there is acute cellulitis or lymphangitis. Both local and general rest is of time honored importance in allowing the defenses to localize and overcome spreading infection. In addition, warm wet compresses of saline are comfortable as well as useful. Particular attention should be paid to avoiding excessive heat because the abnormal skin is easily burned. Indicated antibiotics are used for cellulitis or lymphangitis. Debridement of necrotic material may be needed.

Repeated dressings with bland materials, the avoidance of local damage by unwise local medication, and application of external pressure are important principles of cleaning up the ulcerated area locally and allowing spontaneous healing to occur. The patient is asked to wash gently the surrounding skin twice daily with Phisohex using the previously washed fingers or a carefully applied soft washcloth. The Phisohex coated skin and the ulcer itself may then be flushed with tap water or with isotonic saline solution and fine mesh gauze applied directly to the ulcerated area. The patient is directed to use sterile saline compresses on the area for varying periods of time, depending on the appearance of the ulcer, and is particularly instructed to allow the entire ulcer and surrounding skin to be exposed to the air while elevated for several periods each day to avoid maceration. The periods between compressing and airing are occupied with compression by a sponge rubber pad underneath a snugly applied Ace bandage to insure adequate external pressure.

Antiseptics and dyes placed directly on the ulcer are completely avoided. While they destroy harmful bacteria they also necrose tissue cells and retard healing. To date there is no form of local medication which will increase the speed of healing although there are bland ointments or solutions which apparently do not retard healing. The average patient does not understand that antiseptics do retard healing and considerable explanation may be required to avoid use of such directly in the wound.

Control of dermatitis is commonly needed either due to actual fungal invasion of the ulcerated area or because of a hypersensitivity reaction in the skin of the ankle to fungal infection occurring interdigitally. In addition to fungicidal powder such as Desenex which should be dusted between the toes and on the foot daily, it should be recalled that fungi flourish in a warm moist atmosphere. The elimination of moisture in itself will do much to decrease or to eliminate fungus activity. This can be accomplished by proper drying of the interdigital spaces after bathing, and by the placement of absorbent cotton or small gauze pads between the toes to absorb perspiration. Since hyperhidrosis often accompanies venous ulcers of the lower leg these measures should be emphasized. Hyperhidrosis will of course be eliminated by lumbar sympathectomy and such may occasionally be useful when other measures to eliminate sweating and excess skin moisture fail.

The development of antipruritic agents such as Temaril has greatly increased patient comfort and should be used to prevent scratching of the itching areas. The antipruritic drug will not be needed for more than a few days after which the fungus should be controlled and itching cease.

3. *Surgical treatment.* Since *varicose veins* increasingly appear to represent a simultaneous result of venous insufficiency, rather than to be the cause of leg ulcers, considerable thought should be given to the actual need for their removal. Near normal superficial veins are best allowed to remain with constant external support. Severely damaged saphenous veins will require removal, but it should be recognized that their excision alone will not usually insure continued healing of the ulcer. Other things are also necessary.

Robert R. Linton¹³ recognized the need for more than mere ligation and stripping of the superficial saphenous systems and developed the procedure known by his name. This consisted of: (1) ligation and stripping of the superficial saphenous veins; (2) interruption of the deep venous system (either at the superficial femoral or popliteal level); (3) interruption of communicating veins in the lower leg through a

long vertical incision; and (4) fasciotomy with excision of indurated tissue in the lower leg. Since the original recommendation of this composite operation, ligations of deep veins have in general been abandoned as useless or even harmful on the basis of postoperative physiologic studies, as well as actual results obtained in terms of healing.^{5,9,21}

The full Linton operation is a major procedure and necessitates considerable dissection, as well as resulting in certain instances of poor healing of the long incision in the lower leg. Its principles are recommended in modified form without adherence to the original technic. Varicose superficial veins are ligated and stripped or excised through multiple incisions. Particular care is undertaken to insure that such veins coursing underneath or near ulcers are actually excised completely. Phlebograms are of importance in localizing perforating communicators and these should be ligated, particularly if they occur in the lower leg. Wide excision of large nonhealing ulcers with the surrounding and underlying fibrous tissues is an important adjunct to the surgical management. Superficial scraping with failure of removal of the base of the ulcer is particularly apt to leave incompetent veins underneath encased in indurated scar tissue which leads to recurrence of ulceration.

Sub-fascial ligation of incompetent perforating veins connecting deep and superficial veins has been emphasized in this country by Linton¹³ and in England by Dodd and Cockett.⁷ Interruption of such communications forms an important feature of the composite operation for post-phlebitic ulcer of the lower leg and occasionally is done as a secondary procedure where other venous surgery has been previously performed without relief of ulceration, or with recurrence of ulceration. Details of the operative technic of subfascial communicator ligation vary, but it is generally recognized that dissection of the skin, fat and subcutaneous flaps in damaged tissue of the lower leg is apt to result in slough of the suture line or even necrosis of a portion of the flap and is therefore an operation not to be undertaken lightly nor without the most meticulous and detailed care. It is, however, pertinent to point out that recurrence of

ulceration of the lower leg following stripping of superficial veins may be due either to incomplete removal of the superficial veins or to persistence of incompetent perforators. Phlebograms are of particular help in investigating the cause of such post-surgical recurrent ulceration and in determining the need for further operative therapy.

Skin grafting is necessary for large non-healing ulcers. The importance of adequate excision of scarred tissue underlying open ulcerations and surrounding such is apparent from the study of Anderson and Stephens¹ where 35 ulcers existent in 15 patients for a minimum of two years were treated either by wide excision and grafting or by conservative management with epithelization without operation. In the two to three year follow-up period there had been no recurrence of ulcer in the group of 20 in whom wide excision and grafts were used (although one had persisted as an open area over Achilles tendon). In 10 of the control group of 15 in whom epithelization had occurred on conservative measures without surgery there had been recurrence within the two to three year follow-up. This sustains the belief that damaged and fibrosed tissue should be excised completely, even down to tendon and bone if necessary. No hard and fast rule can be laid down as to the extent of excision but surgical judgment should indicate when all the damaged fibrotic tissue has been removed so a bed can be expected to support a graft. Every attempt is made to leave the delicate peritendinous tissue and not to expose tendon completely. However, in a few instances where this has been necessary, healing has been obtained by debridement, granulation and later by application of pinch grafts. Small areas of bone with intact periosteum have also granulated and it is not usually necessary to drill the cortex although that procedure has been necessary in some reported cases.

Because the majority of ulcers are small and do heal without surgical intervention, every opportunity should be given for this to occur and, unless the ulcer is larger than 3 cm. in diameter, a period of 6 to 8 weeks of intensive conservative management should be utilized prior to surgical

consideration. If the ulcer is much larger than 3 cm., it is probable that healing will fail, or that if healing does occur recurrence is likely, and thus early excision and grafting is advisable. Cellulitis and lymphangitis should be cleared prior to operation to avoid infection; if such has been done the graft is applied at once rather than as a second stage.

Lumbar sympathectomy has been used at times in an attempt to increase the blood supply to the ulcer of the lower leg. This has no rationale in the management of ulcer due to venous disease except that it may be used to prevent hyperhidrosis. Its rationale in the management of arterial ulceration is somewhat more sound although direct arterial surgery is more likely to result in healing.

Finally, it should be recognized that neither healing the ulcer by conservative measures nor doing any combination of surgical procedures will restore a post-phlebotic leg to a normal state. After the ulcer has been healed and the most active measures are no longer needed, the patient should continue to follow a regimen of care of the leg which he has learned during the course of healing of ulceration. Luke,¹⁵ in 1951, not only commented upon certain irrational operations being done at that time but also set up a group of instructions for care of the post-phlebotic leg which he termed the "new way of life." These instructions include proper use of external support, periods of elevation of the legs during the day, and proper foot care and hygiene. Considerable time should be spent in going over every detail of these continuing methods of care to be certain that the patient understands how to live as well as possible with a damaged leg. The physician can teach and advise the patient, but in the final analysis the individual must learn to care for his own leg from day to day.

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STAFF CONFERENCE

Vanderbilt University Hospital*

Acute Renal Failure

DR. RICHARD BIBB:

Present Illness. This 21 year old white woman was admitted to Vanderbilt University Hospital on 4/18/60 because of acute renal shutdown following her third Caesarean section. Nine years prior to admission she had had a bout of acute hemorrhagic nephritis characterized by swelling of her face, hands, and feet which lasted two to three weeks and subsided spontaneously. Almost yearly since that time she has had recurrent episodes of generalized swelling with malaise lasting two to three weeks and rarely associated with dysuria, night sweats or back pain.

Within the last five years prior to admission, she has had two cesarean sections, each of which has followed uneventful pregnancies and was performed because of cephalopelvic disproportion. Both operations and post-operative courses were uncomplicated.

Eight months prior to this admission the patient became pregnant for the third time. At about this time she had another bout of "kidney trouble" with generalized edema and malaise lasting about two weeks and disappearing spontaneously.

Three months prior to admission, she noted increasing weakness with urinary urgency, hesitancy, dysuria and frequency.

Two months prior to admission she had increasing suprapubic discomfort, generalized swelling with headaches and fainting spells. Two weeks before admission, she began having fever and chills with night sweats and progressive weakness.

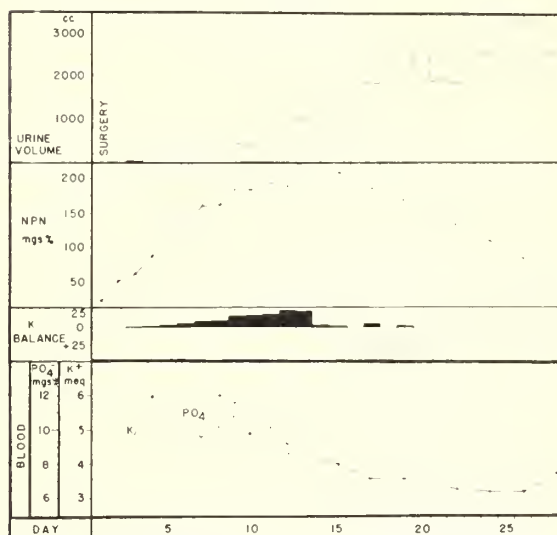
Two days before admission to Vanderbilt University Hospital she was seen at another hospital with nausea, vomiting, cramping abdominal pain, and a temperature of 102°F. At that time she was in the eighth month of gestation, having gained 30 lbs., from 70 to 100 lbs. Though there was no bloody show or evidence of rupture of the membranes, it was felt that she was in labor and, accordingly, a cesarean section was performed a few hours after admission, after institution of tetracycline therapy.

The operation was uneventful although the patient received two units of whole blood during the procedure. Fluid intake during the first 18 hours postoperative consisted of 2500 cc. of 5% glucose in water while urine output was only 700 cc. During the subsequent 14 hours the urine output fell to only 30 cc. She remained febrile and, during the immediate postoperative period, began to note a generalized tenderness, sore throat, and aching in her neck. Thirty-six hours after opera-

tion, she was transferred to Vanderbilt University Hospital.

Physical Examination. Admission physical examination revealed temperature of 102°F., pulse 138 per minute and blood pressure 105/75 mm. Hg. She was a very small but well developed white woman having occasional mild abdominal cramps but otherwise in no distress. The only skin lesions noted were a few small herpetic vesicles around the lips. The sclerae were moderately icteric. The pupils and fundi were normal. There was no significant adenopathy. The neck was supple. The lungs were clear to percussion and auscultation. There was slight hyperactivity of the precordium, but the heart was not enlarged and no rub was heard. The peripheral pulses were readily palpable and there was no neck vein distention or edema. The abdomen was moderately distended and tympanitic with a surgical dressing over its lower aspect. Liver, spleen and kidneys were not palpable. There was no vaginal discharge or rectal tenderness. The extremities revealed a slight clubbing of both feet and normal turgor of skin. Neurologic examination was normal. The laboratory data is presented in Table 1.

Table 1



M. M., VUH #306151

Urine: Sp. Gr. 1.020—1.010, pH 6.0, prot. 3+,
micro 0-3 RBC
0-1 WBC

Blood:

4/18 WBC: 27,550 87% segs

PCV: 35.5

ESR: 29

NPN: 72

CO₂: 18 meq./L.

Na: 130 meq./L.

Cl: 86.7 meq./L.

K: 6.3 meq./L.

4/19 Ca⁺⁺: 6.5 mgm.%

P: 4.4 meq.%

Bilirubin: 11.6 direct —20—1.6

1.5 indirect— 5—1.6

TSP: 5.6 A/G: 2.9/2.7

Alk. p'tase: 6.8

TT—4.0

CF: 3+

Pro time—71%

VDRL—negative

SGOT—313

Plasma osmolarity—283 mosm/Kg.:

Urine osmolarity—282 mosm/Kg.

Bacteriology:

Blood culture x 3—negative

*From the Department of Medicine, Vanderbilt University School of Medicine and Vanderbilt University Hospital, Nashville, Tenn.

Urine culture—no growth. Subsequent A. aerogenes 10⁷

Endometrial swab—light growth Proteus

Hospital Course. On admission she was given 2000 cc. of intravenous fluids within 12 hours with the feeling that her oliguria might be physiologic. When it became evident that her urine volume was not increasing, she was placed on strict renal failure management consisting of intravenous administration of 50% glucose in water in amounts determined by her urine output, body weight and physical findings. Because of her fever, leukocytosis, and suspected infection, she was maintained on broad spectrum antibiotic coverage consisting of aqueous penicillin, 1.2 million units daily, and streptomycin, tetracycline, and chloramphenicol in limited amounts because of her renal incompetence. Her temperature remained under control while this regimen was maintained.

The hospital course was characterized by the lack of any significant evidence of return of renal function. Figure 1 shows her urine volume over the first 15 days. Signs and symptoms of hypercholelism were recurrent in association with persistently rising N.P.N. and potassium which required repeated extracorporeal and peritoneal dialyses.

DR. FRANK WHITACRE: This patient has been of considerable interest to me for it recalls several similar cases in the past. The spectacular thing about the clinical course of the patient is the renal shutdown. However, I do not believe that a renal condition is the primary disease. It will be noted that this young woman has had two previous cesarean sections and it was assumed that a cesarean section would be necessary for her recent delivery. She had previously had a urinary tract infection during this pregnancy. Of particular importance is the fact that one day prior to the cesarean section the patient had nausea, vomiting, chills and a fever of 102°. This was followed by jaundice, icteric sclerae and a direct bilirubin of 5.9 to 20 mg. per 100 cc. The liver function tests also point to liver disease. Acute necrosis of the liver is relatively uncommon. The sequence of events in this case points strongly to acute necrosis of the liver as the primary lesion. This condition was first described as acute yellow atrophy of the liver by Kerking in 1706. We prefer the term acute necrosis rather than acute yellow atrophy of the liver because in many instances the liver is of normal size and in the earliest stage may be slightly enlarged. The cause of acute necrosis of the liver probably varies as sev-

eral factors may work simultaneously in an individual case. The disease has been definitely associated with chemical poisons such as chloroform, arsenic, phosphorus, cinchophen, and carbon tetrachloride. From the work of Bollman, Mann and Magath in 1924 we know that the formation of urea depends upon the liver and is accomplished by the deamination of amino acids. It would have been interesting in this case to have determined the blood amino acids and urea. In the absence of an adequate protein intake, if the amino acids are elevated above normal values and the urea is decreased below normal values, significant liver cell destruction must be taking place. However, there is sufficient evidence from the case presentation to assume that the primary lesion is in the liver and that kidney pathology, if present, is secondary.

DR. WILLIAM LACEY: This patient raises a variety of questions and represents a complex problem. The question of the exact cause of her renal shutdown remains unanswered although there are a number of possibilities. Fever, infection, mild toxemia, transfusion reaction of the less well-defined "hepatorenal" syndrome can all produce acute renal failure. This is not infrequently the case, however, since Dr. John Merrill, in his book on renal insufficiency, states that in 25% of his patients the cause of renal failure cannot be explained. This may be in part related to our incomplete knowledge of mechanisms causing acute renal failure. The complete picture as seen in a classical case of "lower nephron nephrosis" as it was originally called or "acute tubular necrosis" as some have called the condition (since the lesion can be seen almost anywhere in the tubule) is difficult to produce experimentally in animals. Apparently ischemia plays an important role although a toxic effect on the tubular cells and blockage of the tubules may also play a part. Whatever the cause for the tubular damage, the classical picture of tubular blockage and disruption with relative sparing of the vascular structure and the glomeruli is one in which regeneration and recovery of function can be expected. At the other extreme with widespread vascular damage and destruction of glomeruli as seen

in "bilateral cortical necrosis," little recovery of function can be expected.

In any one patient, however, it is often difficult if not impossible to say which course they will follow. In this patient, for example, up until the tenth to fourteenth day one could not say she was not following a course which would lead to recovery. The aim of therapy, therefore, is to maintain the patient alive and in as good condition as possible while the tubules are recovering function and/or regenerating.

There is still a rather wide spectrum of opinion on the management of these patients. At the one extreme is a group which says that most patients can be managed conservatively without resort to artificial means of removing waste products or restoring electrolytes to normal levels. The other extreme of opinion holds that all patients with acute renal failure should be treated with "artificial kidneys" using one of the various methods of hemodialysis. There are recent reports of continuous dialysis being carried on throughout the periods of shutdown and reports of daily repeated dialysis from indwelling arterial and venous cannulae. The third group is intermediate between these two and maintains that while a great number of such patients can be managed by conservative therapy, there are some patients that definitely have need for dialysis and may, in fact, die without this. The report of Korean war experiences is impressive in this regard in that the mortality fell from 93 to 50% following introduction and use of the artificial kidney.

If this is to be the philosophy, there then arises the question of when hemodialysis should be performed. The decision rests, unfortunately, not on any single simple determination or even on levels of several chemical determinations, but on a combination of evaluations of the patient's clinical condition and changes in this condition and the rates of changes in the biochemical abnormalities. One of the primary criteria used is the degree and severity of the "uremic" symptoms, namely, mental clouding, irritability, uncooperativeness, stupor, nausea and vomiting. If these are severe or rapidly progressive, they alone may be an indication for dialysis.

The level of the blood urea is not in itself

any measure of the prognosis. However, the rate of rise of blood urea nitrogen may give valuable information regarding the direction and rapidity of clinical deteriorations as it indicates roughly the rate of protein catabolism. McCracken, *et al*, using uremia as an indication for dialysis found that when the blood urea nitrogen rose 10 to 15 mg.% per day patients did not in general require dialysis. When the blood urea nitrogen rose 15 to 30 mg.% per day most patients required one or two dialyses, whereas those rising at 30 mg.% or more required multiple dialyses.

It has been said for a long time that urea in itself is nontoxic because no symptoms could be caused by acutely raising the level in normals. This question has recently been reopened by Grollman, who reported that uremic dogs did not receive benefit from dialysis unless the blood urea was lowered. As early as 1925, Van Slyke and others described abnormal glucose tolerance in chronic uremic patients. This was reconfirmed by Perloff, *et al*, in chronic renal failure in a study in which he ruled out dietary effects. These investigations presented some evidence suggesting that this was due to the elevated urea. The possible effect of uremia on glucose metabolism needs further investigation to establish that the abnormality results from azotemia *per se* rather than as a manifestation of chronic illness. Although not conclusive, these studies are suggestive that azotemia in some manner does affect intermediary metabolism and supports those who would keep the levels of retention products as near normal as possible.

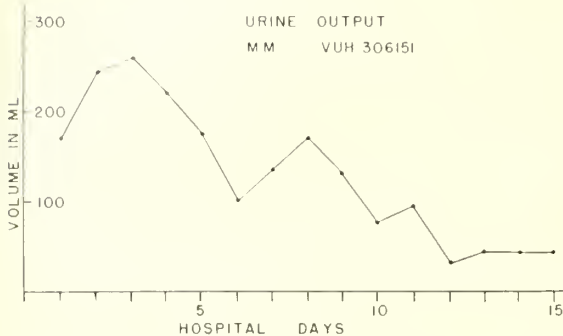
Potassium intoxication represents another indication for dialysis. Again the decision for dialysis is not made on serum levels alone but also on the neurologic signs of intoxication, the EKG. changes or the rate of rise of the serum level of potassium. Potassium intoxication can be temporarily controlled by administration of hypertonic saline, calcium gluconate or glucose plus insulin but a rapidly rising potassium accompanied by clinical signs of intoxication is an indication for removal of potassium by hemodialysis or peritoneal dialysis.

Sometimes severe electrolyte disturbances or severe disorder of acid-base balance may

require dialysis though these can usually be prevented by careful regulation of the patient's water, electrolyte and caloric intake.

To return to this patient, let me first show a slide (Fig. 2) of a patient who was man-

FIG. 2.



aged conservatively. This was a 68 year old man who had renal shutdown following an aortic graft for an aneurysm. Note that the rate of rise of N.P.N. tapered off after about 8 days, but continued to rise after the onset of diuresis. For the first 10 days the rate of rise of N.P.N. averaged about 12 mg. per 100 cc. per day. The initial high potassium did not rise and gradually fell once diuresis ensued. Now, compare that course with the present patient (Fig. 3). Note here that the rise of N.P.N. was about 35 mg. per 100 cc. per day, and this rate did not slow until there was a slight change at about day 16. Because of increasing mental deterioration and rapid rise in N.P.N., dialysis No. 1 and No. 2 were

performed. Potassium serum levels had been adequately controlled by the use of glucose and exchange resins. Dialysis No. 3 was performed because of deterioration of the clinical condition and elevation of N.P.N. The hope was that this dialysis would carry her through since the average patient begins to recover at 10 days + 6. We had hoped this would be sufficient but potassium intoxication ensued, and the 4th dialysis was performed as emergency because of hyperkalemia and paralysis.

Because of gastrointestinal hemorrhage and difficulty in controlling her clotting time, dialysis on the kidney unit is being withheld and potassium is being controlled with peritoneal dialysis at the present time.

DR. ELLIOT NEWMAN: Why do you think there was such a rapid rise in her N.P.N.?

DR. LACY: There were several causes; first, the catabolic response to the surgery and her high fever. In addition, this woman was in the post partum catabolic period following delivery. Her kidneys failed in the period when she was catabolizing not only the protein of the uterus but protein stores in other tissues which had accumulated during pregnancy.

DR. NEWMAN: Can you say anything about the specific gravity of her urine? What is the advantage of measuring urine osmolarity?

DR. LACY: Unfortunately, the urine specific gravity early in the course has not turned out to be a reliable index of actual tubular damage, although it may be helpful in some cases. The measure of urine osmolarity gives essentially the same information as specific gravity but is more precise and, with certain solute loads, more accurate. One of its advantages is that the comparison between plasma and urine osmolarity can be carried out. This is important because concentrating ability is affected by the plasma osmolarity.

DR. DAVID ROGERS: Dr. Grossman, do you have any comments?

DR. LAURENCE GROSSMAN: I do not think this patient has acute tubular necrosis. I think she has a form of bilateral cortical

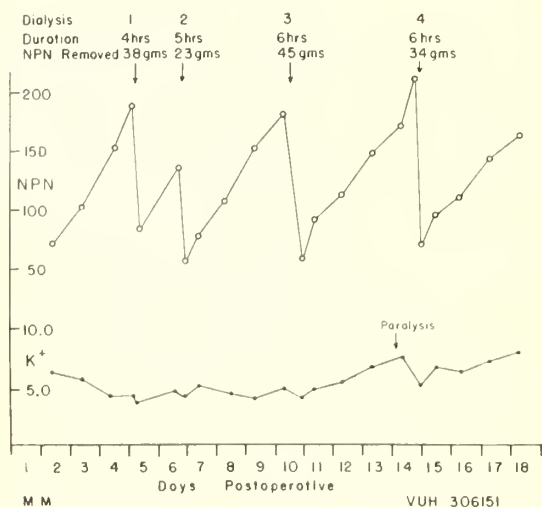


FIG. 3.

necrosis and that this is probably irreversible.

DR. LACY: I agree and think all who have been following her feel this now. Her urine volume has certainly not followed the usual pattern for acute tubular necrosis. These patients usually have severe oliguria or anuria for a few days with very gradually

increasing volume followed by diuresis. This patient's urine volume followed a different course with falling volumes over the first week. However, I don't think one could tell that this patient did not have acute tubular necrosis until she had been observed through the tenth or twelfth day of her oliguria.

CLINICOPATHOLOGIC CONFERENCE

Veteran's Administration Medical Teaching Group Hospital*

Leiomyosarcoma of the Stomach

Michael L. Gompertz, M.D., and Robert D. Gourley, M.D.

Present Illness. This 40 year old white man was well until five or six days prior to admission when he developed malaise, anorexia, and mild nausea. A headache accompanied these symptoms but was readily relieved by aspirin. On the day prior to admission he developed fever and the headache became more severe. Aspirin no longer relieved it. The malaise increased and there was considerable myalgia and arthralgia. He was unable to keep anything on his stomach, emesis occurring several times in the 24 hours prior to admission. There was no history of hematemesis, no change in bowel movements and no abdominal pain.

His past history revealed that he had had a cholecystectomy 8 years previously, a left lower lobectomy for bronchiectasis 7 years previously, and 3 years ago he was admitted for a stomach upset and discharged with the diagnosis of "psychophysiologic gastrointestinal reaction manifested by functional indigestion." His last previous admission was 2 years before the P.I. for a shotgun wound of the right thigh, at which time a colostomy was required and later closed. Nothing abnormal was noted at this laparotomy which was done through a lower rectus incision.

Physical Examination. T. 100, P. 112, R. 26, B.P. 110/80. The patient was well developed, well nourished and appeared acutely ill, complaining of severe headache involving the periorbital and frontal regions, extending over the top of the head and down the neck. He was oriented but somewhat drowsy. Very mild stiffness of the neck was present and there was tenderness of the muscles of the neck. There was a well-healed thoracotomy scar on the left. The lungs were clear and the heart normal. Well-healed right upper quadrant and suprapubic scars were present. There was generalized abdominal tenderness to palpation, most marked in the upper quadrant, but no spasm was noted. The liver was not palpable. The spleen could not be felt. During inspiration, deep palpation of the right upper quadrant was painful.

Laboratory Data. RBC. count 5,240,000, Hgb. 12.7 Gms., hematocrit 46%, WBC. 9,400, neutrophils 91%, lymphocytes 7%, monocytes 1%, basophils 1%, sedimentation rate 31 corr. Urine—reaction 4.5, specific gravity 1.013, albumen—trace, sugar—negative, microscopic 4-6 WBC. and occasional granular cast. STS was negative. Spinal

fluid—no cells present, negative globulin, sugar 89 mg.%, chloride 120 mEq/L, protein 36 mg., cardiolipin and colloidal gold reactions negative. Serum bilirubin 2.4 mg.%. BUN. 14 mg.%, sodium 148 and potassium 4.4 mEq/L. Total serum protein 6.5 Gm., albumen, 3.5, globulin 3.0. Stools were negative for ova and parasites. Sputum was negative for fungi and acid-fast organisms. Blood culture sterile, antistreptolysin titer positive in 1:50 dilution. Heterophile agglutination positive in 1:28 dilution. Complement fixation for histoplasmosis and blastomycosis was negative. Cephalin flocculation 3+ in 48 hours. EKG.—tachycardia.

X-Ray Studies. Heart—not enlarged, lung fields clear, left diaphragm elevated. G.I. series—compression of the proximal half of the stomach by an extrinsic mass, some coarsening of the rugae, but no filling defects or ulceration, the lateral view demonstrated the proximal half of the stomach displaced anteriorly by a large rounded mass. IVP—normal.

Hospital Course. Shortly after admission the temperature rose to 104°. He was given tetracycline, streptomycin and supportive therapy, but his temperature still continued to vary between 100 and 104°, and there was no relief of symptoms. He was placed on emetine and his temperature dropped during the first few days of this therapy but returned to a febrile level, varying between 99 and 101. Clinically he showed no significant improvement. On his 29th hospital day an operation was performed.

Clinical Discussion

DR. GOMPERTZ: In summary we are presented with a 40 year old white male with a febrile illness of 5 weeks duration associated with radiological evidence of a large mass compressing the proximal portion of the stomach and displacing it anteriorly. The patient was operated upon and my problem is to determine the nature and origin of the mass, i.e., whether it was inflammatory or neoplastic and from which structure it arose.

The present illness is essentially that of fever and the discovery of a mass. In view of the numerous past illnesses one wonders whether this was an acute illness of a few weeks duration or an acute episode in the course of a chronic disease process. Therefore, I shall review the past history chronologically.

The patient had a cholecystectomy for stones 8 years ago. Now he comes to the hospital with fever, vomiting, a serum bilirubin of 2.4 mg. and a cephalin flocculation of 3 plus so that one would have to wonder, even at this late date and even without pain,

*From the Medical and Laboratory Services of the Veterans Administration Medical Teaching Group Hospital, Memphis, Tenn.

about the possibility of a common duct stone. However, the course in the hospital is against such a diagnosis and even if a calculus were present, this could not be correlated with a left upper quadrant mass.

A left lower lobectomy was done for bronchiectasis 7 years previously. If this statement in the protocol is correct, I can see no relation of this to the present illness. However, is it possible that this lung contained a tuberculous focus and the mass compressing the stomach could be a mass of tuberculous nodes? If so, fever and hepatic involvement could also be secondary to tuberculosis. There is much against a diagnosis of tuberculosis. This would be a peculiar location for enlarged tuberculous lymph nodes, the chest film and sputum were negative, and most important in my opinion is the lack of response of the fever to streptomycin. Hence I will assume that the lobectomy was actually done for bronchiectasis. Incidentally, I wondered at first about the possibility of meningitis, even tuberculous meningitis, but the spinal fluid was entirely normal and I assume that the headache, drowsiness and slight stiff neck represented a reaction to the high fever.

Three years ago the patient was admitted with a diagnosis of functional indigestion. This may have been a minor temporary upset or it may have been related to the present illness. I have no way of knowing.

The shotgun wound requiring temporary colostomy 2 years before the present admission does not seem relevant.

Now to return to the present illness. The physicians who treated this patient gave him a course of emetine apparently on the assumption that he had an amebic abscess of the liver. He had fever, an elevated serum bilirubin and a positive cephalin flocculation test, and an elevated left diaphragm although the latter may have been the result of his previous thoracic surgery. If he had hepatic amebiasis it must have been in the left lobe which is relatively uncommon. Masses in the left lobe of the liver usually displace the stomach inferiorly and laterally to the left and ordinarily show crescentic deformities along the lesser curvature of the stomach, not anteriorly as described in the protocol. Furthermore, there was no response to emetine. From the data

at hand I doubt very much that this patient had a liver abscess. This is as much as I can say from the information at my disposal. I wonder if I might see the films at this point?

DR. GREENBERG: The film of the upper gastrointestinal tract shows marked compression of the proximal half of the stomach displacing the barium. This may be consistent with mass compression either from within or without the stomach (Fig. 1).

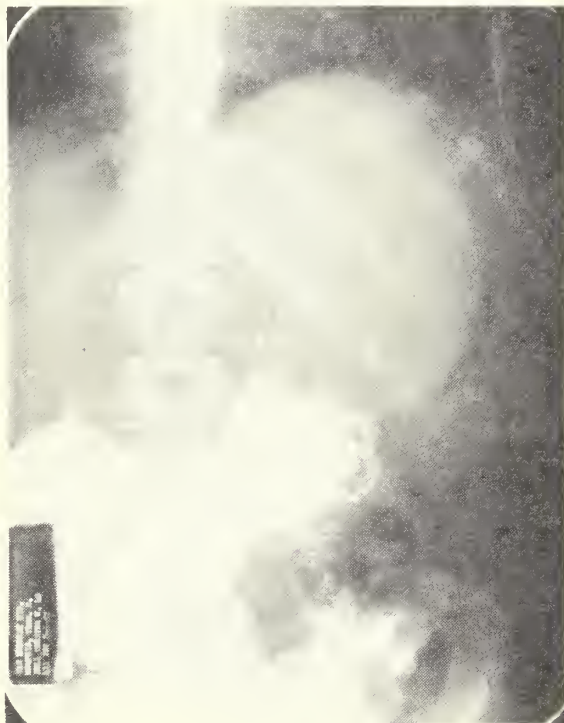


FIG. 1.

DR. GOMPERTZ: I must attempt to decide whether this striking X-ray picture is produced by an extrinsic or an intrinsic gastric lesion. Anterior displacement of the stomach can be produced by masses arising in the left kidney or adrenal, the splenic flexure of the colon, the spleen, or retroperitoneal structures such as the tail of the pancreas and lymph nodes.

1. Renal and adrenal masses on the left side, I believe, can be ruled out by the negative I.V.P. and urinalysis.

2. If a mass were present in the splenic flexure which was large enough to push the stomach forward, the patient should have had bowel symptoms, particularly obstruction and probably bleeding. There is nothing to indicate distention of the bowel on

the films nor is there evidence of colonic disease clinically.

3. An enlarged spleen could displace the stomach anteriorly to some extent but the radiographic appearance would be a crescentic defect on the greater curvature of the stomach and the spleen itself should be visible if enlarged.

4. The most likely extrinsic lesion in this case is a retroperitoneal one. A large cyst of the tail of the pancreas might produce this picture but if present should cause compression of the lesser curvature of the stomach which is not seen. Retroperitoneal node enlargement due to lymphoma seems to be the most likely of the extra-gastric causes of this picture and in favor of this is the fever so often seen in Hodgkin's disease but also in reticulum cell sarcoma and lymphosarcoma. However, though retroperitoneal lymphoma is certainly a good possibility, the enlarged gastric rugae and distortion of the mucosal pattern makes me think more of an intrinsic gastric neoplasm.

This mass could not have arisen from mucosa without causing a large gastric filling defect, ulceration and hemorrhage. Therefore, I feel safe in eliminating carcinoma of the stomach. Extra-mucosal tumors of the stomach consist of a host of benign and malignant growths of mesenchymal origin which can enlarge sufficiently to produce displacement of the stomach and cause coarsening of the gastric folds by direct pressure even without ulceration. To mention some of the possibilities—we must consider fibroma, lipoma, leiomyoma, leiomyosarcoma, lymphosarcoma, neurogenic sarcoma and even a glomus tumor. From the clinical course and the size of the tumor I am going to assume that this neoplasm was malignant and I can only guess at the diagnosis. The most frequent of this rare group are the lymphosarcomas and the leiomyosarcomas. The former may be confined to the stomach alone but frequently spleen, lymph nodes, etc., are involved. The lack of nodes and splenomegaly favors leiomyosarcoma in our patient. Leiomyosarcomas often bleed, however, and our patient had no hemorrhage. In fact, the paucity of gastrointestinal symptoms impresses me as an amazing feature of this case. The presenting finding was fever and I believe this was

due to necrosis in the tumor. However, I am unable to explain the pathogenesis of the elevated serum bilirubin and positive cephalin flocculation test. These abnormalities could have been due to liver metastases—more common with lymphosarcoma. On the other hand, the bilirubin was not fractionated and the slight elevation could have been indirect bilirubin as a result of hemolysis in an area of massive necrosis in the tumor. This, I think, would be more likely to occur in an ulcerating leiomyosarcoma.

I will conclude by saying that this patient had a sarcoma of the stomach—most likely, on statistical grounds, to be lymphosarcoma or leiomyosarcoma.

Anatomic Findings

DR. GOURLEY: At operation a large firm nodular mass, approximately the size of a grapefruit was found which involved the posterior wall of the stomach, the pancreas and possibly the splenic vessels. When the stomach was palpated, a large crater on the posterior surface could be felt overlying the tumor. During this manipulation blood was recovered from the Levine tube. It was believed that further surgery at this time would endanger the patient's life. A biopsy was taken and the incision closed.

Microscopic section of the biopsy material showed the tumor to be composed of bundles of spindle shaped cells having vesicular nuclei and eosinophilic fibrillary cytoplasm. In some areas there was a small amount of fibrous stroma, few scattered mitoses were present. The histologic picture was that of a leiomyosarcoma (Fig. 2).

The patient was given radiation therapy through three converging fields to the left upper quadrant. A tumor dose of 4500 r in thirty-two days was given.

The patient's general condition improved, and a G.I. series demonstrated a marked reduction in the size of the mass. Six weeks from the time of his exploratory laparotomy he was again operated upon. The tumor appeared to have regressed one-third to one-half of its previous size, and could be dissected away from the pancreas and adjacent structures. A radical subtotal gastric resection was done.

The specimen consisted of a firm nodular mass measuring 13 x 8 cm. in its greatest



FIG. 2.

diameters, attached to the posterior wall of the stomach. Upon opening the stomach the mucosa appeared normal except in that area immediately overlying the tumor.



FIG. 3.

Here the tumor bulged inward, flattening and smoothing the mucosal folds. In the center of this mass there was a defect measuring 1.5 cm. in diameter (Fig. 3). A probe could be passed through this into the internal portion of the tumor. The specimen was sectioned through the fistulous tract, and on cut surface it was a dull greyish-white in color, nodular, with numerous cystic areas of necrosis (Fig. 4).

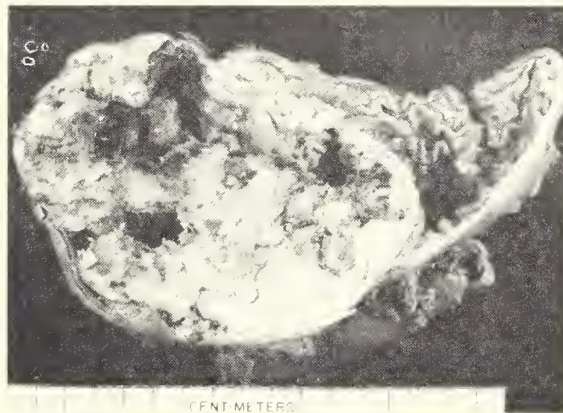


FIG. 4.

Microscopically it was seen to arise in the muscularis of the stomach. The cell pattern was that seen on the previous biopsy.

Leiomyosarcomas of the stomach are relatively rare tumors. It is reported that they form only 1.8% of all gastric neoplasms. There are no characteristic clinical signs, but the common manifestations are pain, which may be ulcer-like in character if mucosal ulceration is present, anemia, and a palpable mass, none of which was present in this patient. Since these tumors arise from the muscularis, the mucosa is not primarily involved, and ulceration is not necessarily present. Metastases occurs promptly by way of the blood stream to the liver. Lymph node involvement is unusual. These tumors are said not to be radio-sensitive, however, in this case there was a definite regression in size. Perhaps this was due to the evacuation of necrotic material from the center of the tumor through the sinus tract into the stomach. Whether or not radiation therapy played a part in this mechanism is difficult to evaluate.

Final Diagnosis: Leiomyosarcoma of the stomach.

President's Page

ORGANIZED MEDICINE FACES DANGERS



RALPH O. RYCHENER,
M.D.

A new term has been coined and we are beginning to hear more about it. Much is being said today about the "image" of medicine. Just what is the "image" of medicine? Perhaps the clearest definition would be the impression that we make upon our patients. The activities of the profession in the conduct of its own affairs as well as those in which doctors participate in their communities, state and nation, have a great bearing upon the "image" of medicine.

As Dr. Vincent Askey, President of the AMA has put it, "It is necessary to establish a favorable image of physicians in the minds of the general public, and it is equally important to establish an even stronger image in the minds of our own members."

With our increasing population and our more competitive practice of medicine, doctors should take note that politicians will wait only for the opportune moment, and the opportune moment grows closer as more and more of us disregard the many changes taking place over our country and in our own organization. Sinister influences are working night and day to undermine our system of free enterprise and the free choice of physician that has made American medicine the greatest in the world. There are a few members of our profession who think only of their own ambitions and who sell the profession short. There are members of our government who have pledged themselves to the destruction of organized medicine, and there are subversive groups that are constantly working to undermine us.

It therefore behooves us as physicians in this rapidly progressing scientific age to repledge ourselves to the teachings of Aesculapius and Hippocrates and return to the ethics of Luke; the future of medicine is good, but the future of organized medicine depends upon all physicians.

In order to improve the "image" of medicine, let us try to analyze where we have been and where we are going. There is a constant flow of bills being presented to our legislators, state and national, which would lead us into a complete federal socialized program of medicine, thus resulting in the strangulation of private practice.

I urge strongly that doctors continue to be active in politics, local, state and national. Tennessee physicians in all areas of the state have ably demonstrated their ability in this field in the months just preceding the Democratic primary. We must continue to support our friends in politics with our voting and financial aid. We have dwelt too long in the ivory towers of science. We must be practical. The national average election expenses of a representative to Congress are said to be \$10,000. We cannot continue to expect our friends, subject to pressures of many other influential groups, to accede to our wishes and desires unless we give of our time, effort and material resources to help elect them to the offices which they seek.

We must improve our "image" in that wasteful practices in the care of patients lead to increases in the cost of health insurance. We must encourage the prescribing only of the essential drugs and necessary laboratory procedures incidental to each particular patient. Our patients may be willing to pay a higher premium in order to obtain greater coverage, but they will eventually rebel at paying increasingly higher rates to purchase the same amount of protection. Your State Association has approved \$2,500 for the use of our special committees to study the abuses existing in Tennessee in health insurance plans. This is a tremendously important study and one that will bear watching with interest.

The "image" of medicine is not as dull as many of our opponents would have the public believe. But in these changing times, changing opinions, and changes in the thinking of our nation, it behooves us to be more cognizant of this "image" and the impact left upon the public.

Ralph O. Rychener, M.D.

President

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NOVEMBER, 1960

EDITORIAL

ANTENATAL DETERMINATION OF FETAL SEX

Although curiosity would seem to be the most important reason for determining sex in the unborn fetus, recently the prevention of hereditary disease has served as a stimulus to increasing knowledge of antenatal determination of fetal sex. The problem of the diagnosis of fetal sex had "always challenged attention, intrigued interest and baffled solution" according to Blakely. In 1955, within a period of five weeks, four groups of investigators in widely separated areas of the world, Copenhagen, New York, Jerusalem and Minneapolis, submitted papers on the antenatal determination of sex using the same method. Earlier studies by Barr and his coworkers showed sex chromatin in the intermitotic nuclei from female cells and later such sex chromatin could be demonstrated not only in living tissue but also in desquamated cells from mucous membranes. Then it followed naturally

that cells in the amniotic fluid might be used in the antenatal determination of sex.

Riis and Fuchs,¹ one of the four groups of workers who described the original method of determining fetal sex, have just reported on their experiences with this method. Their report concerns work done in their native country, Denmark, where the technic is used as a means of justifying legal abortion in the prevention of hereditary disease. Although the diagnosis of fetal sex can be made from the end of the first trimester, the procedure should not be used to satisfy curious parents since it requires puncture of both the uterus and the membranes. Puncture is usually made through the anterior fornix, although sometimes abdominal puncture is necessary. There is a very limited risk to the mother with infection being the most likely and important, although perforation of the bladder or bowel is always a possibility.

The risks to the fetus are undoubtedly greater. Infection of the ovum and lesions of the placenta, the cord or the fetus may cause abortion. Abortions and congenital malformations of the fetuses of mice have been reported in animals subjected to this procedure and these difficulties have been attributed to the loss of the withdrawn amniotic fluid. For this reason Riis has advocated replacement of the fluid with an equal volume of normal saline. Possible fetal damage in the human cannot be evaluated adequately because the number of cases is still too small. If, however, this determination is done only on those with possible indication for abortion, an increased risk probably is justified.

Riis discusses his results in patients with a strong family history of hemophilia where abortion of a male fetus may be indicated. There are other severe sex-linked recessive hereditary diseases such as pseudoglioma which is associated with grave mental deficiency. This procedure is not limited to determination of fetal sex alone. Blood groups can be determined also although no severe hereditary disease linked to blood-group is known now. As knowledge in-

¹Riis, Povl and Fuchs, Fritz: Antenatal Determination of Foetal Sex in Prevention of Hereditary Diseases, *The Lancet* 2:180, 1960.

creases examination of amniotic fluid or its cells may enable us to diagnose before birth some of the metabolic enzyme defects now known to cause severe disorders.

The development and full study of this new method must not be hampered by ill-advised or indiscriminate use now. We hope at the present time that this procedure will be restricted to the few cases where sex determination is vital and the possible risks are justified.

A. B. S.

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THE TENNESSEE PLAN—IT NEEDS SUPPORT

Some days ago your Editor heard a talk by Mr. Horace Cotton, Executive Director of the magazine *Medical Economics*. Mr. Cotton came from England a decade ago and has been associated with the North Carolina Blue Cross, established a management firm for physicians, and accepted his present position just about a year ago.

He thus has had the opportunity to observe certain turns of events at first hand. In this talk he said, if he may be quoted from memory, "Protect voluntary health insurance! In 1945, the several insurance plans (in England) went 'broke' and government picked up the pieces." He firmly predicts that when prepaid health insurance fails the people, federal insurance will follow. Mr. Cotton said that what he has observed since coming to the United States ten years ago is a kind of movie, a "re-run" of what had taken place in England before its National Health Service was born in 1948.

(Your Editor heard similar expressions as a veiled threat in a talk by Mr. Jerome Pollack, at a recent meeting of the Association of American Medical Colleges, who spoke on "The Effect from the Standpoint of the Consumer," on a panel considering "Effects of Teaching and Research on the Teaching Hospital's Economy." Mr. Pollack, of the Social Security Department of the United Auto Workers [C.I.O.] and a brilliant speaker, was one of the invited speakers at the A.M.A. Congress on Prepaid Insurance last May.)

These comments are made to stimulate members of the profession to take a look at themselves and their relationship to the

Tennessee Plan. Is it failing? Does it offer a preview of things to come as predicted by Mr. Cotton? And when federalization of medical care, in whatever form, arrives will one need to admit, "I did my bit in hurrying it in!" The speaker implied that fees will become fixed through prepaid health insurance and this might as well be faced, for if not, they will be fixed unquestionably by governmental agency. (Observe Medicare and its shifting of fixed fees.)

On the same program at the meeting of the *Southern Medical Association* on which Mr. Cotton appeared, was another speaker, Mr. Woodson Wirsig, Editor of *Printers' Ink*, who periodically makes surveys of what various segments (high school graduates and college graduates) of the public think about doctors. He listed 19 items apparent in the *image* of the doctor today—whether true or false. Among these were items pertinent to the topic in hand, namely high and increasing fees, charges made in excess of those listed under insurance plans, and that voluntary plans are not meeting the needs of the cost of medical care.

Are Tennessee doctors contributing to the failure of the Tennessee Plan! Your Committee on Prepaid Health Insurance hears the following complaints. From employers that fees are charged in excess of those listed under the Plan, and from both the Farm Bureau and employers that all too often the general surgeon or specialist involved in a case is not a participant in the Tennessee Plan. Hence he is not bound by the Plan, leaving the employer or patient in uncertainty as to costs for surgical care. (45% of surgeons who are members of the American College of Surgeons are not participants in the Tennessee Plan.)

It may literally be true that failure of the Tennessee Plan will not hurry federalization by one day. But it will be one of many nation-wide failures, and nonparticipation is akin to not voting, where admittedly one vote does not decide an election. Just as there are responsibilities of citizenship so there are responsibilities as members of a profession. If nothing more, unpleasant experiences contribute to the current image of a calculating profession in the eyes of our fellow-citizens, employers and the farm groups both of whom have put their stakes

on voluntary insurance versus governmental plans.

R. H. K.

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AMEF

The time of the year is approaching when you should be reminded of the American Medical Education Foundation. In planning deductions in income tax this item should not be forgotten.

Here one can contribute to organized medicine's effort to provide medical schools with funds without strings attached, to be spent by deans for the good of medical education. Here one can pay back something on the money someone—philanthropist or tax-payer—contributed to one's education and a good life.

Last year contributions to AMEF increased by 132% over the previous year. Contributions had increased in 47 states. Illinois is the outstanding state where, through an increase in dues, each of the 9561 members contributed \$20 to a total of \$170,890 in 1959. Over and above this doctors of Illinois gave another \$9670, bringing the total to \$180,560. They are certainly making a contribution to medical education in Tennessee! North Dakota physicians have arranged to make installment payments to AMEF through deductions by Blue Shield from fees due them.

Do not forget AMEF in planning tax deductions before December 31st.

DEATHS

Dr. Rolland Florin Regester, 61, Rockwood, died on September 21st at Knoxville's University Hospital.

Dr. Ernest W. Goodpasture, 73, Nashville, died September 20th following a heart attack. He was an internationally known pathologist and a former dean of Vanderbilt University Medical School.

Dr. William Bruce Dye, 83, Springfield, died on September 18th in a Nashville Hospital.

Dr. Glen T. Scott, 77, Brownsville, died September 26th at his home.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Chattanooga Hamilton County Medical Society

The Society's regular monthly meeting

was held on October 5th in the Interstate Building. The scientific program was as follows: "Ten Years Experience with Individualized Treatment of Carcinoma of the Cervix," by Dr. W. P. Hutcherson; and, "Use of Segments of the Gastrointestinal Tract in Urologic Diversion," by Dr. Jesse L. Williams, Jr.

Memphis-Shelby County Medical Society

The Society met in regular session at the Institute of Pathology Auditorium on August 2nd. The scientific program was as follows: "Symposium on Trauma" with Dr. Moore Moore, Jr., acting as moderator. Panelists were: Dr. William Morse, who presented "Trauma to the Genito-Urinary Tract"; Dr. Joseph Loughheed, "Trauma to the Chest and Abdomen"; Dr. Malcolm Aste, "Trauma to the Hand, Wrist and Forearm"; and Dr. D. F. Fisher, "Orbital and Middle Third Facial Injuries." The symposium presented an interesting and informative program.

Greene County Medical Society

The Society met on October 4th at the Elks Club in Greeneville. The session was a joint meeting of the Greene County Society and the Greeneville Bar. The scientific program was preceded by a number of business items acted upon by the Society. The scientific program was presented by Dr. Luke L. Ellenburg who spoke on the subject "Why Doctors Do Not Like to Attend Court." The paper was discussed by Mr. Herbert Silvers, attorney.

Knoxville Academy of Medicine

The Academy conducted its regular meeting on October 11th in the Academy of Medicine Building. The program was sponsored by the Knoxville Unit of the Tennessee Division of the American Cancer Society. Two distinguished guest speakers addressed the membership.

Nashville Academy of Medicine and Davidson County Medical Society

The Academy dinner meeting and program was conducted on October 11th in the St. Thomas Hospital Cafeteria. In addition to the business presented to the Society, an interesting program in the socio-economic

field was presented. The speaker for the evening was Mr. Matthew Lynch, Nashville, Legislative Representative and Director of Education and Public Relations for the State Labor Council. Mr. Lynch's subject was "What Labor Expects of Medicine."

Consolidated Medical Assembly of West Tennessee

The Society joined with the West Tennessee Heart Association for its meeting on October 6th at the New Southern Hotel in Jackson. Dr. George E. Burch, cardiologist and professor of medicine at Tulane University, New Orleans, was the featured speaker during the heart symposium program. Other lecturers during the session were: Dr. Jas. W. Culbertson, professor of medicine; Dr. Lorin E. Ainger, assistant professor of pediatrics; and Dr. Robert G. Allen, professor of surgery, all at the University of Tennessee College of Medicine in Memphis.

Also on the program were: Dr. John L. Shapiro, professor and head of pathology, and Dr. Rollin A. Daniel, Jr., professor of surgery at Vanderbilt University School of Medicine, and Dr. Thomas M. Blake, professor of medicine at the University of Mississippi Medical School in Jackson, Miss.

Stones River and Rutherford County Medical Society

At a recent meeting of the Society, the doctors of the county met to discuss the blood program in Rutherford County. Dr. S. C. Garrison, president of the Society, invited representatives of the American Red Cross Blood Program to discuss problems with the members. The Society voted to sponsor a drive for blood donations.

Roane County Medical Society

The Roane County Society conducted its regular monthly meeting on October 25th in the dining room of the Oak Ridge Hospital. The guest essayist was Dr. E. Converse Pierce, III, of Knoxville and his subject was "The Use of the Membrane Lung and Hypothermia."

NATIONAL NEWS

The Month in Washington (From the Washington Office, AMA)

Representatives of the medical and health professions, the federal government and national civic groups are cooperating in development of a program for starting the general use of the Sabin live-virus poliomyelitis vaccine next year. Shortly after clearing the Sabin vaccine for general use, Leroy E. Burney, M.D., Surgeon General of the Public Health Service, asked 23 non-government organizations to designate members to serve on a Surgeon General's Committee on Poliomyelitis Control.

An agenda committee met with PHS officials in Atlanta October 11 and 12 and drafted a basic agenda for a meeting of the Control committee in mid-winter. At the Atlanta meeting, preliminary consideration also was given to administrative and technical problems involved in use of the live-virus vaccine developed by Albert B. Sabin, M.D., of Cincinnati.

The Agenda Committee was made up of representatives of the American Medical Association, American Academy of General Practice, American Academy of Pediatrics, Association of State and Territorial Health Officers, Children's Bureau and the National Foundation.

The Sabin vaccine is not expected to be available in substantial quantities before mid-1961.

The chief question is whether the vaccine—which is given orally in the form of pills, liquid or candy—will be administered on individual or mass community basis. The PHS special committee that recommended approval of the oral vaccine said that the community basis would be better.

"Because of the unique nature of live poliovirus vaccine, with its capacity to spread the virus in a limited manner to non-vaccinated persons, the committee cannot make recommendations for manufacture without expressing concern about the manner in which it may be used," the special committee said.

"The seriousness of this responsibility can

be illustrated, for example, by the known potentiality of reversion to virulence of live poliovirus vaccine strains, and the possible importance of this feature in the community if the vaccine is improperly used.

"For example, the vaccine has been employed largely in mass administrations where most of the susceptibles were simultaneously given the vaccine, thus permitting little opportunity for serial human transmission; or, it has been administered during a season of the year when wild strains have usually shown limited capacity for spread. This experience should provide the basis for developing useable practices for the U.S.A."

The special committee also said attention should be given to administration to special groups, such as very young children, pregnant women, and susceptible adults.

"Even more important is the planned continuation of this program as long as necessary to achieve and maintain the required results," the committee said.

The committee was headed by Roderick Murray, M.D., of the National Institutes of Health. Its other members were four M.D.'s and one Ph.D., all of whom were connected with universities except for one M.D. from the PHS's Communicable Disease Center at Atlanta.

Neither the committee nor Dr. Burney anticipated that the live virus vaccine would replace the killed-virus Salk vaccine used since April, 1955.

"It appears probable that only a unified national program which utilizes each of the available types of vaccine to its best advantage can accomplish the total prevention of outbreaks," the committee said.

Dr. Julian P. Price of Florence, S. C., Chairman of the AMA's Board of Trustees, predicted the live-virus vaccine "will be one more powerful weapon against an ancient and crippling disease." He said that physicians "have conscientiously pushed immunization with the Salk vaccine and now, with this new vaccine, the profession is hopeful that even better results can be achieved."

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Five states were ready soon after the effective date of October 1 to submit plans for participation in the federal-state program of

health care for the needy and near-needy aged persons which recently was enacted into law. The states were Arkansas, Michigan, New Mexico, Oklahoma and Washington.

As of early October, another 25 states were preparing to consider legislation to set up such a program or had indicated a willingness to proceed without new legislation. They were Alabama, California, Colorado, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kentucky, Louisiana, Massachusetts, Montana, Nevada, New Jersey, North Dakota, North Carolina, Ohio, Pennsylvania, Rhode Island, Utah, West Virginia, Virginia and Wyoming.

Arthur S. Flemming, Secretary of Health, Education and Welfare, urged all states to take part in the program as soon as possible. But he also said he hopes that Congress in the next session will approve a Republican plan for a supplementary federal-state program to help provide private health insurance for elderly persons who cannot meet their medical expenses.

It appears that the issue probably will arise in Congress next year because some Democrats also have said they will again sponsor legislation that would provide health care for aged persons through the Social Security system.

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The AMA has launched a "comprehensive study and action program" to guide Americans in spending their health-care dollars more wisely.

The AMA's new Commission on Medical Care Costs has set out "to guide Americans in spending their health-care dollars more wisely."

The AMA's new Commission on Medical Care Costs has set out "to find answers to the many questions being raised about medical care costs and to present the findings frankly and forthrightly to the medical profession and to the public."

The program is "dedicated to promoting the highest quality health care at the lowest cost." Louis M. Orr, M.D., of Orlando, Florida, chairman of the commission, said that "any barrier that stands in the way of this objective should be removed—immediately."

One of these barriers is money wasted

on ineffective non-prescription or over-the-counter drug products, such as vitamins, food fads, and rheumatism and arthritis remedies. AMA's Council on Foods and Nutrition has estimated that much of the estimated \$350 million spent annually on self-prescribed vitamins is wasted.

The AMA is urging physicians to alert their patients and the public to the latent dangers involved in self-prescribing and to the folly of throwing their health-care dollars away on quackeries.

On another front in the war against quackery, Food and Drug Commissioner George P. Larrick reported that during the past 12 months the FDA has seized falsely promoted vitamins, minerals and other so-called "health foods" valued in excess of \$1.5 million. He said that the amount of misinformation, pseudo-science and plain "hokum" on health care reaching the public through books and magazine articles is increasing.

MEDICAL NEWS IN TENNESSEE

Tennessee Academy of General Practice

The 12th Annual Scientific Assembly of the Tennessee Academy of General Practice was held on October 27-28, 1960, at the Hermitage Hotel in Nashville. The scientific program, acceptable for ten hours of Category I Credit, was presented. The subjects and essayists were as follows:

"Office Management of Minor Fractures"—

Dr. Moore Moore, Jr., Memphis

"Evaluation and Treatment of Low Back Pain"—Dr. George K. Carpenter, Nashville

"Newer Anti-Hypertensive Drugs and Their Use"—Dr. Fred Goldner, Nashville

"The Acute Abdomen"—Dr. Harwell Wilson, Memphis

"Office Gynecology"—Dr. Robert M. Ruch, Memphis

"Diagnosis and Treatment of Pelvic Tumors"—Dr. Robert L. Chalfant, Nashville

"Endocrine Disturbances as a Cause of Sterility"—Dr. D. Scott Bayer, Nashville

"Office Approach to Sterility Problems"—Dr. James B. Millis, Nashville

"Medical Aspects of Space Operations Bio-

Astronautic Flights"—Col. Harry McClain, Red Stone Arsenal, Alabama

"Medical Aspects of Space Operations—Some Occupational Health Aspects"—Dr. Burton S. Shook, Sr., Redstone Arsenal, Alabama

"Office Dermatology—Diagnosis and Treatment of Eczema"—Dr. Robert N. Buchanan, Jr., Nashville

"Office Care of the Eye, Ear, Nose and Throat"—Dr. Herbert Duncan, Nashville

"Office Urology"—Dr. Oscar W. Carter, Nashville

"The Future of the General Practitioner"—Mr. Mac F. Cahal, Executive Director and General Counsel, American Academy of General Practice, Kansas City

"Follow-up Care of the Diabetic Patient"—Dr. Albert Weinstein, Nashville

"Advantages and Hazards of Prolonged Anti-Coagulant Therapy"—Dr. Ralph M. Denham, Louisville, Kentucky

"Examination of the Unconscious Patient"—Dr. Arnold M. Meirowsky, Nashville

"Management of the Unconscious Patient"—Panel discussion by Dr. Denham, Dr. Meirowsky, and Dr. Weinstein

East Tennessee Radiological Society

The East Tennessee Radiological Society met at Gatlinburg on September 10th, when the following officers were elected. Dr. John M. Higgason was elected president; Dr. James Jacob Range, president-elect; Dr. Clifford L. Walton, Jr., vice-president; and Dr. J. M. Frere, Jr., secretary-treasurer.

Special TSMA Committee to Study Abuses in Medical Care Plans

The special committee, directed by the House of Delegates to study abuses in medical care plans, has finalized its program to proceed with studying several hospitals in Tennessee. A survey team has been selected and the first study will be made at the Maury County Hospital in Columbia. The Columbia hospital will be the first pilot study and as soon as the survey is completed for this facility, the entire TSMA Committee will consider the results and recommend two additional rural community hospitals and two metropolitan hospitals from the various areas of the state to be audited. A full report of the study will be

made to the House of Delegates in April, 1961.

Jackson General Hospital Marks Decade of Service

Completion of the third major addition to the Jackson-Madison County General Hospital marked the end of ten years of service by the institution. The new addition increased bed capacity to 275. Opening with the personnel staff of 180, the hospital now requires the services of 425 persons, other than doctors and volunteer workers. It is the second largest employer in Madison County, with an annual payroll in excess of one million dollars.

From an active medical staff of 36 when the hospital opened, Jackson has grown as a medical center, attracting many physicians to the community and now the active staff numbers 55 doctors. In addition, there is a courtesy staff and a dental staff.

During its 10 years of service, more than 90,000 in-patients, those requiring bed services, have been admitted. The figure includes more than 11,500 births.

Annual admissions now exceed 12,000 and about 7,500 are served on an outpatient basis yearly. Services are of such quality as to meet the standards of the Joint Commission on Accreditation of Hospitals, the national accrediting agency.

New Hospital Planned in Nashville

A new one million dollar convalescent hospital of 140 beds is projected for Nashville, adjacent to Centennial Park. The facility is being planned by a group of Nashville doctors and businessmen. It is reported that the hospital will be of ultra-modern design and will be used as a convalescent hospital and nursing home and will be entirely financed by private funds. Construction of the new hospital is expected to begin within the next few months as soon as financing plans and architectural plans and design have been completed.

Tennessee Valley Medical Assembly

The Eighth Annual Assembly was conducted in Chattanooga, September 26-27, at the Read House. Dr. Robert A. Waters served as chairman and Dr. J. Edward Strickland, Jr., co-chairman, in arranging

for the assembly which is sponsored by the Chattanooga-Hamilton County Medical Society. Assisting in the arrangements for the 1960 Assembly were: Drs. Stewart Auerbach, George E. Beckman, Jr., John M. Crowell, Robert G. Demos, Guy M. Francis, E. Wayne Gilley, Frank B. Graham, Carl A. Hartung, Edward G. Johnson, M. F. Langston, W. B. MacGuire, W. Houston Price, E. E. Reisman, Jr., Eugene Ryan, Richard Stappenback, Harold J. Starr, Willard Steele, Jr., Robert C. Thompson, George G. Young.

The Assembly was attended by outstanding physicians throughout the nation. A complete program of the subjects presented and speakers was included in the October issue of the Journal.

Postgraduate Symposium at Sparta

A postgraduate education symposium was presented by the Tom Moore Chapter, Tennessee Academy of General Practice and the Eli Lilly Company on September 21, 1960 at the Sparta Country Club. A series of interesting papers were presented by the following: Drs. J. Sumpter Anderson, J. Lynwood Herrington, Jr., William H. Edwards, and A. Bryant Lipscomb, all of Nashville. Twenty-seven physicians attended the symposium.

Knoxville-Oak Ridge-Maryville-Morristown Pediatrics Association

Pediatricians from Tennessee, Kentucky, Virginia, and North Carolina met on September 18th in Gatlinburg for the regular fall meeting. Dr. James C. Overall, Nashville, immediate Past-president of the American Academy of Pediatrics, spoke on "Pediatric Allergy." The meetings were conducted in the Riverside Hotel.

Survey of Traffic Accidents Sponsored by Memphis-Shelby County Medical Society

A survey showed nearly one-tenth of the persons involved in traffic accidents in Shelby County are called "repeaters." The survey conducted by the society covered a one-year period and covered 16,903 motorists. The society said 1,591 were "Repeaters" or drivers who reported their accident was the second in a six months period. More than 8,000 of the drivers wore glasses and

the 25-44 age group had the most accidents. The findings may show that a need exists for a law requiring re-examination for Tennessee drivers.

West Tennessee Academy of General Practice

The Society convened on September 15th where the banquet speaker stated "the role of the physician in modern society should be first, last and always, service to humanity." The speaker was Representative Dale Alford (D., Ark.) an eye specialist. The meeting was held at the New Southern Hotel in Jackson. Dr. Alford's address concluded the all-day affair which consisted of a symposium earlier in the afternoon that stressed the importance of physicians in the event of a national emergency.

University of Tennessee College of Medicine

A three-year residency program in plastic surgery has been approved at the University. The program is one of the few in the South. A new department in Plastic Surgery will be set up in the Division of Surgery and will include research in the specialty.

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Grants totaling \$264,054 from the U. S. Public Health Service have been allotted for training and research purposes. The Division of Pathology and Microbiology received \$189,000 for a five-year period for training dentists in experimental pathology. A second grant of \$95,048 has been received for a study of slipped discs. This was a joint award, the University's part was \$39,288 while Southwestern University received \$55,760.

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Bacteriologists have begun a study of white blood cell's "line of defense" against tularemia, under a new \$41,324 grant from the U. S. Department of Health Education and Welfare's National Institute of Health.

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A \$300,000 grant has been offered to finance a St. Jude-ALSAC chair of pediatrics. ALSAC stands for American Lebanese Syrian Associated Charities. The endowment calls for the University to nominate the professor of pediatrics and for him to also

serve as medical director of St. Jude's. The hospital directors and the University of Tennessee would have to approve the choice.

Influenza Vaccine

The Tennessee Department of Public Health has recently received from the U.S. Public Health Service recommendations in regard to the use of polyvalent influenza vaccine. The purpose in making these recommendations is to inform physicians on the high risk population groups as based on recent mortality figures and *not* to make an appeal for mass immunizations.

From a careful analysis of the excess mortality due to influenza in recent epidemic years, national figures show that the groups at highest risks are persons over 65 years of age, the chronically ill, and pregnant women. The years 1957 and 1958 were epidemic years for influenza in Tennessee. In 1957 the number of deaths in the age groups 45-64 years, and 65 years and over were 6 to 7% above the numbers expected after consideration of increased population in those ages. There was a 36 per cent increase for influenza and pneumonia and an 8% increase for cardiovascular deaths. In 1958, the experience was similar as in 1957 with an increase of 35% over the expected deaths for influenza and pneumonia and 10% over expected deaths from cardiovascular disease. In brief, in these two epidemic years there was an increase in deaths in the older age groups over that expected and this increase was mostly due to influenza and pneumonia and cardiovascular diseases.

The U. S. Public Health Service recommends that physicians make influenza vaccinations for the aged and chronically ill as routine a medical practice as is the immunization of infants against diphtheria or pertussis. The specific recommendations of the Public Health Service for routine immunization include:

- A. Persons at all ages who suffer from chronic debilitating disease; *e.g.*, cardiovascular, pulmonary, renal, or metabolic disorders, in particular—
 1. patients with rheumatic heart disease, especially those with mitral stenosis,
 2. patients with other cardiovascular disorders, such as arteriosclerotic or hypertensive

heart disease; especially those with evidence of frank or incipient cardiac insufficiency, 3. patients with chronic broncho-pulmonary disease; *e.g.*, chronic asthma, chronic bronchitis, bronchiectasis, pulmonary fibrosis, pulmonary emphysema, and pulmonary tuberculosis,

4. persons with diabetes mellitus, and

5. patients with Addison's disease.

B. Pregnant women.

C. All persons 65 years and older.

Dosage

The recommended adult dose of polyvalent vaccine for the initial immunization is 1.0 cc. (500 CCA units) subcutaneously, administered on two occasions separated by two or more months. Preferably the schedule of vaccination should be completed by November 1. Each fall thereafter, prior to November 1, persons in the groups specified to receive continuing protection and who have already had the initial immunizing series should receive a 1.0 cc. booster dose of the vaccine subcutaneously.

Effectiveness

Numerous published reports of vaccine evaluations carried out within recent years have demonstrated that influenza vaccination may be expected to be from 60-75% effective in preventing the disease.

Reactions

In adult populations, a low incidence of side reactions may be expected. These are most frequently in the form of transient febrile responses or local tenderness at the injection site. Penicillin sensitivity need not be of concern when injecting influenza vaccine, for current preparations contain none of this antibiotic. Since the vaccine is produced in eggs, the Advisory Committee of the Public Health Service has advised

against vaccination for persons who are unable to eat eggs or chicken because of food allergy, or who have had a definite allergic reaction, whether urticarial, asthmatic, or anaphylactic, on previous inoculation of an egg vaccine.

A Continuing Vaccination Program for the Chronically Ill

In the past, influenza immunization programs have tended to be intermittent, predominately in response to public concern before and during epidemic periods. Such epidemics tend to recur in cycles of unpredictable periodicity, but an endemic incidence occurs continually. For these reasons immunization of the specified high risk groups is recommended to begin now and should be continued annually, regardless of the predicted incidence of influenza for a particular year.

PERSONAL NEWS

Dr. D. W. S. Shupe has joined Dr. Irving R. Hillard of Nashville in the practice of obstetrics and gynecology.

Dr. Richard O. Cannon, Nashville, and president of the Tennessee Hospital Association was named president-elect of the Medical School—Teaching Hospital section of the Association of American Medical Colleges at its recent meeting in Hollywood, Florida.

Dr. Samuel S. Binder, Chattanooga, recently discussed "The Limitations of the Physician in Preventing Mental Retardation," before the Chattanooga Council for Retarded Children.

NUMBERS OF OBSERVED AND EXPECTED DEATHS AND NUMBER AND PERCENTAGE OF OBSERVED DEATHS IN EXCESS OF EXPECTED, BY AGE GROUP AND SELECTED CAUSES, TENNESSEE 1957 AND 1958

Age Group	1957				1958			
	Deaths Observed	Deaths Expected*	Difference Num- ber	Per Cent	Deaths Observed	Deaths Expected*	Difference Num- ber	Per Cent
Total	31,329	29,945	1,384	4.6	32,305	30,400	1,905	6.3
Under 15 years	3,171	3,259	-88	-2.7	3,270	3,288	-18	-0.5
15-24 years	577	593	-16	-2.7	588	589	-1	-0.2
25-44 years	2,336	2,412	-76	-3.2	2,343	2,430	-87	-3.6
45-64 years	7,899	7,428	471	6.3	7,913	7,505	408	5.4
65 years and over	17,346	16,253	1,093	6.7	18,191	16,588	1,603	9.7
<i>Selected Causes</i>								
Total	31,329	29,945	1,384	4.6	32,305	30,400	1,905	6.3
Influenza and pneumonia	1,334	984	350	35.6	1,346	1,000	346	34.6
Cardiovascular diseases	16,211	14,945	1,266	8.5	16,806	15,205	1,601	10.5
All other causes	13,784	14,016	-232	-1.7	14,153	14,195	-42	-0.3

*On basis of average annual death rates for 1954-1956 and estimated populations for the particular year.

Dr. F. Tremaine Billings, Nashville, has been named dean of students at Vanderbilt University School of Medicine.

Dr. M. M. Keirns, Memphis, presented a paper before the Southern Medical Association meeting in St. Louis, October 30-November 3. His subject was "Arteriograph in Diagnosis of Occlusive Cerebrovascular Disease."

Dr. F. Jones Siley has joined **Dr. Thomas H. Curtis** in Chattanooga as associate in the practice of obstetrics and gynecology.

Dr. A. Julian Ahler, formerly of Cumberland, Kentucky, has announced the opening of his office for the practice of medicine in Harriman.

Dr. Merlin L. Trumbull, Memphis, has been named president-elect of the American Society of Clinical Pathologists at its recent annual convention in Chicago.

Dr. Richard H. White, Hickman, has been elected president of the medical staff of the Obion County General Hospital at Union City, succeeding **Dr. E. C. Thurmond** of Martin. **Dr. R. L. Gilliam** of Union City was re-elected vice president and **Dr. Harold Butler** was elected secretary, succeeding **Dr. Harold W. Calhoun**, both of Union City.

Dr. James B. Ely, Knoxville, has been named area vice president of the Tennessee Division of the American Cancer Society.

Dr. Harry Baer has joined the Queen City Infirmary in Tullahoma where he will head the departments of obstetrics and gynecology.

Dr. Nat H. Copenhagen, Bristol, attended the 36th Annual Meeting of the Mayo Foundation Alumni Association at Rochester, Minnesota. He is a former president of the Alumni Association.

Dr. Herbert H. Hollis has become associated with **Dr. J. F. Adams** at the Medical Clinic-Hospital in Woodbury.

Dr. W. D. L. Record and **Dr. Gus J. Vlassis**, Chattanooga surgeons, have moved their offices from the Interstate Building to the new Provident Building.

Dr. Robert A. Lewis, Knoxville, recently discussed skin diseases at a meeting of the East Tennessee Chapter of the American Society of Safety Engineers.

Dr. George K. Henshall, Chattanooga, recently spoke on "Medical Careers" at the East Ridge High School.

Dr. Jas. B. Cox, Knoxville, recently addressed members of the American Society of Plastic and Reconstructive Surgery at the Hotel Statler in New York.

Dr. Powell Hutcherson, Chattanooga, has attended the Fourth International Cancer Congress in Minneapolis, and the Seventh District meeting of the American College of Obstetrics and Gynecology in New Orleans.

Dr. Bland W. Cannon, Memphis, is the chairman of the Shelby United Neighbors medical division.

Dr. J. Marsh Frere, Chattanooga, is the program chairman of the Chattanooga Health Council's 17th annual series of school health broadcasts.

Dr. J. C. Ayers, Jr., Memphis, has been appointed to the staff of the Shelby County Hospital.

Dr. J. P. Glover, Ashland City, has accepted a position as assistant medical director of the National Life and Accident Insurance Company in Nashville.

Dr. Kenneth C. Susong has become associated with **Dr. Sells Blevins** in the practice of medicine at Jonesboro.

Dr. Harold M. Kelso, Knoxville, has been named director of the Knox County Health Department.

Dr. Addison B. Scoville, Jr., Nashville, has been elected president of the Tennessee Society of Internal Medicine. **Dr. John Young**, Memphis, was named president-elect and **Dr. Richard Sexton**, Knoxville, was chosen secretary-treasurer.

Dr. Jas. H. Spalding, Chattanooga, described Chattanooga's poison control center in a talk recently before the Chattanooga Kiwanis Club.

Dr. Lester F. Littell has moved his practice of medicine from Coalmont to Dayton, Tennessee.

Dr. H. C. Capps has returned to private practice at McEwen. He was formerly with TVA.

Dr. B. F. Byrd, Jr., Nashville, recently addressed the Springfield Kiwanis Club.

The Medical Assistants Society of Tennessee recently heard a panel discussion presented by the following Knoxville physicians: **Drs. Chas. C. Smeltzer, Richard Sexton, Glenn Kennedy** and **John Smoot**.

Dr. Jerry E. Puckett has become associated with **Drs. C. M. Clark** and **B. C. Smoot** in McMinnville.

Dr. Maurice Rawlings, Chattanooga, recently spoke on "Pitfalls in Heart Diagnosis" on the weekly Health Council telecast in Chattanooga.

Dr. R. H. Kampmeier, Nashville, gave the T. Leon Howard Lecture on September 30, in Denver, Colorado.

At the recent Clinical Congress of the American College of Surgeons, held October 10-14, in San Francisco, 19 Tennessee surgeons were inducted as Fellows of the College. They were: **E. Harris Pierce**, Cleveland; **Thomas A. Patrick, Jr.**, Fayetteville; **Charles O. Parker, Jr.**, Johnson City; **Robert L. Banner**, Kingsport; **James B. Cox** and **Joseph I. Gareia**, Knoxville; **Jerome N. Barrasso**, Fenwick W. Chappell, Harold Feinstein, Joseph C. Garbarini, Jr., M. Beckett Howorth, Jr., R. Luby Jones, Gordon L. Mathes, Billy G. Mitchell, William S. Ogle, and Benjamin F. Scott, all of Memphis; **S. Benjamin Fowler** and **Herschel A. Graves, Jr.**, Nashville; **Joe H. Henshaw**, Sweetwater.

HISTORICAL NOTES

Joseph Jones: Confederate Surgeon

Harris D. Riley, Jr., M.D.*

Dr. Riley, a former member of the Nashville Academy of Medicine and the Tennessee State Medical Association has given us a most interesting account of the life and times of a great southern physician, Dr. Jones, who was an active teacher, editor and health officer in Nashville after the War Between the States, was in many respects ahead of his time in his understanding of the epidemiology of infectious diseases. He made observations in typhoid fever and malaria indicating he may have been the first to recognize the organisms. One must read this essay to appreciate Dr. Jones' full life and the contributions he made.—Editor.

The War Between the States produced one of the most versatile physicians this country has known. Despite his many valuable contributions, Joseph Jones is little known even among the medical profession. He recognized the tremendous economic, sociological and political factors that would result from the War and saw an opportunity to study disease in its purest form. He hoped to develop important concepts that would be of value to his people after the peace. In these endeavors he barely missed the niche of the truly great—he “almost” discovered the true cause of malaria, the real causative organism of typhoid, and the phenomenon of phagocytosis.

Joseph Jones was born September 6, 1833 in Liberty County, Georgia and was the son of the Rev. Charles Colcock and Mary Jones. He had a prominent military heritage. He was the maternal grandson of Captain Joseph Jones, commander of the Liberty Independent troops in the War of 1812, and his paternal great grandfather was Major John Jones, aid-de-camp of Brig. General Lachlan McIntosh, who fell before the British lines at Savannah during the assault of October, 1779. Ancestors of the

Jones family removed to America from England and located at Charleston, South Carolina. His father, the Rev. Charles C. Jones, a Presbyterian minister, was the author of many elaborate reports extending over the series of years detailing his work among the Negroes of Liberty County, Georgia. His best known contributions was a catechism for the instruction of Negroes and “The History of the Church of God.”

Doctor Jones acquired his early education under private tutors and entered the University of South Carolina at the age of 13 years. In 1853 he was graduated from Princeton College with the distinguished honors receiving the B.A. and M.A. degrees. He entered the University of Pennsylvania Medical Department and received his M.D. degree in 1855. His inaugural thesis “The Physical, Chemical and Physiological Investigations upon the Vital Phenomena, Structure and Offices of the Solids and Fluids of Animals,” a remarkable contribution for a young man of 23 years, was published in the leading medical periodical of that day, *The American Journal of Medical Sciences*.¹⁵ He was the first private student of Professor Joseph Leidy and enjoyed the personal friendship of Professor Samuel Jackson and other distinguished physicians of that time. Doctor Jones began the practice of medicine in Savannah, Georgia in 1855. He promptly began an investigation of malaria in the Marine Hospital and Poor House³ and in 1858 first published his observations on this disease.¹⁶ At this time he was elected to the chair of chemistry in the Savannah Medical College and held that position until 1858 when he was elected the Professor of Natural Philosophy and Natural Theology in the University of Georgia at Athens. In 1859 he accepted the position of Professor of Chemistry in the Medical College of Georgia at Augusta and retained this position until interrupted by active service in the War Between the States.

In 1861 he volunteered in the Liberty Independent Troop and was attached to the cavalry service but in 1862 was transferred to the Confederate Army as full surgeon with the rank of Major. He served in this position until the cessation of hostilities in 1865. On February 9, 1863, Jones wrote Samuel P. Moore, Surgeon-General of the

*From the Department of Pediatrics and the Children's Memorial Hospital, University of Oklahoma School of Medicine, Oklahoma City, Okla.

Confederate States Army, concerning his investigations of the phenomena presented by a case of tetanus which occurred in the General Hospital at Augusta, Georgia.¹ He stated "such an investigation as that now presented appeared to be necessary for I am unacquainted with the report of a single case of this disease where careful and full record was kept of the pulse, respiration, temperature and nervous and muscular phenomena and physical and chemical changes of the urine throughout the course of the disease." In this report, Doctor Jones described very clearly the clinical picture of tetanus. In this communication to Doctor Moore, he also requested authorization to investigate typhoid fever in military camps. In Doctor Moore's answer of February 17, 1863, he stated "the opportunities now offered of making a free and thorough investigation as to the nature and history of fever as caused by animal effluvia, contradistinguished from those produced by vegetable exhalations or malaria should not be permitted to pass unimproved. Your attention, therefore, is especially called to this class of disease, and you are directed to make a thorough investigation. Beside the mere satisfaction, in a scientific point of view, the results are likely to be of the greatest practical importance to the Army."¹ Moore also volunteered the facilities of the Surgeon-General's office to further Doctor Jones' investigation.²

On June 28, 1863, Doctor Jones again communicated with General Moore concerning investigation of various diseases in different divisions of the army of the Confederate States. The cases presented in his manuscript were selected from more than 1,000 cases, treated and carefully observed by the author. The communication also contains several original drawings of the liver and Peyer's patches in typhoid or "camp" fever. In this communication, Doctor Jones stressed the importance of postmortem examinations in the study of disease. He stated that typhoid fever was the disease which had proved most fatal to southern soldiers in the military district of Georgia and South Carolina. He also made a plea for the differentiation of typhus from typhoid fever "as purgatives are borne quite well in former, but are destructive in the

latter." It should be noted that Doctor Jones was considerably ahead of his time in this feeling as it was customary at that time to treat typhoid fever with cathartics.

The orders regulating the investigation of Surgeon Jones were enlarged by the Surgeon-General so as to admit him into any army camp or fortified town in the bounds of the Confederate States.¹ His investigations were conducted in the Army of Northern Virginia, the Army of Tennessee, and the hospitals of Richmond, Charlottesville, and Stanton, Virginia as well as Charleston, South Carolina, Savannah, Augusta, Atlanta, and Macon, Georgia. He also investigated the nature of the diseases which proved so fatal to the Federal prisoners in Belle Isle, Libby Prison in Richmond and Andersonville, Georgia.

One of his better known studies is entitled "Investigations upon the Nature, Cause, and Treatment of Hospital Gangrene as It Prevailed in the Confederate Armies, 1861-1865," and is published in *Sanitary Memoirs of the United States Sanitary Commission*.⁷ The original manuscript of the work is a huge volume, meticulously recorded in long-hand, and recounts his experiences during the War. It is the property of the Rudolph Matas Library, Tulane University School of Medicine, New Orleans, Louisiana. In the introduction to this treatise, Doctor Jones again shows his foresightedness when he states, "how to obviate and remove the most common cause of military and civil disease is with me a more momentous consideration than to aim at setting off my own importance by filling the reader's mind with matters of mere speculation or to detain him with subjects which come before him rarely." In this lengthy manuscript, Jones begins with a description of his activities during the spring and summer of 1862 when he was attached to the General Hospital in Augusta, Georgia and describes his experience with the management of gunshot wounds in recruits from Virginia, and the coast of South Carolina. He then proceeds to give a very clear-cut description of hospital gangrene. During the months of August, September, and October, 1863, he visited the sick and wounded in the general hospitals of South Carolina and in Richmond, Charlottesville, and Lynchburg, Vir-

ginia and instituted investigations upon hospital gangrene and other diseases. He also studied the effects upon the wounded of "vile" air in bomb proofs of Morris Island, South Carolina. He then returned to Augusta, Georgia, where the Confederate Hospitals were crowded with wounded from the bloody battle of Chickamauga, Georgia. Here he studied the epidemiology of hospital gangrene—its appearance in relation to the time of injury and to hospital crowding. In August, 1864, in response to the directions of the Surgeon-General, a brief report upon hospital gangrene giving the general results of his labors up to that time was submitted.

Immediately afterwards he reported to Camp Sumter, Andersonville, Georgia and instituted a series of investigations upon the diseases of the Federal prisoners. The description as given by Doctor Jones is of extraordinary interest.⁷ "There were more than 5,000 seriously sick in the hospital and stockade, and the deaths ranged from 90 to 130 each day. From the establishment of this prison on the 24th of February, 1864 to the first of October, 10,000 Federal prisoners died; that is, nearly one third of the entire number perished in less than seven months." There he instituted careful investigations in the condition of the sick, performed numerous post mortem examinations, and reproduced clear and instructive drawings of the diseased structures (see Appendix). The topography of Andersonville and surrounding country was examined, and the waters of the streams, springs and wells around and within the stockade and hospital were carefully analyzed. Diarrhea, dysentery, scurvy, and hospital gangrene were the diseases which were the main causes of the extraordinary mortality.

The origin and causes of the hospital gangrene which had such fatal effects upon the prisoners engaged his chief consideration. "The scorbutic conditions induced by salt meat and farinacious food without fresh vegetables modified the course of every disease, poisoned every wound, however slight and was the foundation of obstinate diarrhea and dysentery which swept off thousands of these unfortunate men. Such was the state of the solids and fluids in systems debilitated by long confinement, despair,

and poor diet, that slight injuries, abrasions and scratches of the surface and the bites of small insects were in many cases followed by such rapid and extensive gangrene as to destroy extremities and even life itself." Jones comments on the handicap under which he labored in that the term gangrene did not appear in the Official Classification of Diseases until 1864 when it appeared for the first time in the Confederate List of Diseases. He gives a complete historical view of all writings concerning diseases which actually represented hospital gangrene. He describes several well-documented cases of hospital gangrene and hourly progress reports on the natural history of the disease. Dr. Jones describes in detail his extensive microscopic and chemical investigations upon hospital gangrene. Extensive analyses of urine including the amount of urea, uric and sulfuric acids, chloride, sodium, and other constituents were measured in 24 hour specimens. He also reported "on the amount of fibrin in 1,000 parts of healthy and diseased blood in numerous conditions." At Andersonville, Dr. Jones decried the incompleteness of the reports of the medical officers. He states "upon this incomplete report 266 cases of hospital gangrene are reported with 67 amputations in consequence of the disease and 25 deaths. One hundred and two cases were given as supervening gunshot wounds and the remainder reported as gangrenous ulcers of lymphatic system. Twelve cases were reported following vaccination. These figures are far below truth. Many cases of gangreneous ulceration which arose from hospital wounds, minor abrasions, scurvy, diarrhea, dysentery, and other diseases were noted." He noted that gangrene appeared as rapidly as twenty-four hours after the receipt of the injury.

Dr. Jones states "by a long and painful investigation of the diseases of these prisoners supported by numerous post-mortem examinations, I demonstrated conclusively that scurvy induces nine tenths of deaths." Assistant Surgeon A. Thornburgh, assigned to the Confederate States Military Prison Hospital at Andersonville, stated on October 18th, 1864, in a letter to Dr. Jones that "out of over 30,000 prisoners who had been confined at this place during the past spring

and summer, perhaps no less than one-half had suffered from this disease (scurvy) in some of its various forms. Gangrene first made its appearance in the stockade in the latter part of April or the first of May. The following is a tabular statement of the patients in one ward and treated in Ward 5, Second Division, Confederate States Military Hospital, Andersonville, during the past three months."⁷ (Table 1.)

Dr. Jones' physical condition was weakened by his time at Andersonville. In a footnote to the Andersonville report, he wrote: "At the time of the prosecutions of these investigations (September 1864) my own system was somewhat scorbutic, as manifested by the spongy and bleeding gums consequent upon the prolonged use of salt meat, with but scanty supply of vegetables."

Dr. Jones⁷ gives a very lucid description of his treatment for the prevention and management of hospital gangrene. "Water, supplies, nutritious animal and vegetable food, free ventilation, and the largest possible supply of fresh air to each patient, scrubbing with scrupulous cleanliness the wounds as well as the person's clothing and bedding compartments of the wounded are the great prophylactic measures against hospital gangrene. When the disease appears in a filthy or crowded hospital every responsibility rests upon the medical officers. Hospitals for the treatment of the sick and wounded should be located in elevated well-drained and well-watered and healthful situations where the most perfect arrangements can be made for free ventilation and the removal of all extramentous matters associated with large towns and cities."

One of Dr. Jones' most important contributions was to call to the attention of Confederate Surgeons the frequency and importance of pneumonia in the Army.²² He pointed out that field reports showed 28,273 cases and hospital reports 15,542 in an army of 160,231 men. This analysis is of particular interest since pneumonia was not mentioned in Gross' *Military Surgery*, a standard reference on military medicine of that day. He stated that the ratio of deaths from pneumonia in the Floyd House Hospital in Macon, Georgia during thirty months was

22.9 per cent; in General Hospital #1, Savannah, Georgia during twenty-five months 31.35 per cent. In Guyton Hospital, situated some 20 miles from Savannah in a healthy, sandy, barren region, the deaths from pneumonia accounted for only 8.98 per cent.

He cited statistics concerning other diseases and comments on the importance of never placing wounded in wards with patients suffering from any one of the contagious or infectious diseases such as smallpox, measles, scarlet fever, and typhoid, erisipelas, or hospital gangrene. "These various diseases should not be indiscriminately mingled together. The general hospital compartment should be allowed a possible 2,000 cubic feet of air. Blood-letting should be avoided as it tends still further to press the enfeebled powers in tending to the afflicted, a wound in turn which may become gangrenous. Quinine and chloride acid of iron deservedly hold a high place in the armamentarium of Confederate surgeons in the treatment of hospital gangrene." Dr. Jones felt that concentrated nitric acid was the most valuable agent in the local treatment of gangrene. This report is also accompanied by several excellent drawings made by Dr. Jones. One entitled "Microscopical Appearance of Gangrenous Matter of Femoral Vein (drawn from nature by Joseph Jones, Surgeon, CSA)" illustrates several bacilli in the field. However, Dr. Jones did not realize the significance of these organisms at the time. He illustrated the contagiousness of hospital gangrene by citing the case of a Negro washerwomen who, after washing the clothes obtained from the hospitals, acquired gangrene in minor abrasions of the hands. He also cites several cases of wives of soldiers who came into the hospitals to nurse their wounded husbands and contracted gangrene. He also concluded that constitutional syphilis could be transmitted by spurious vaccination.²⁴ He did not appreciate the significance of this observation and in fact, discarded the "germ theory" of the origin of gangrene. "After a careful examination . . . I have come to the conclusion that in the present state of our knowledge we are unable to demonstrate that these animalcules are in any way connected with the origin and spread of hospital gangrene."²²

In retrospect, Dr. Jones seems to have been lost in the details of his own information. The limitation of the microscope to 250 diameters made classification of micro-organisms observed impossible, and culture methods for organisms had as yet not been introduced.²² Furthermore, by his own admission, he was hindered by lack of critical associates and the relative lack of experimental scientific work in his immediate surroundings. Of these conditions he wrote in the preface to his first volume of his "Medical and Surgical Memoirs," published in 1876. "Situated at a distance from public libraries, and deprived of personal intercourse with learned men and original investigators, of congenial pursuits, whose counsel might have removed doubts, and directed and stimulated exertion, the author has labored under disadvantages, which necessitated the purchase of original works and monographs relating to the subjects under investigation. The effort, therefore, has been made to present such an analysis of the labors of others, in connection with the subjects examined, as might prove of value to Students and Practitioners of Medicine, more especially in the Southern States."¹⁸

On his visit to England and Europe in 1870 he was exposed first hand to the new era of bacteriology as expounded by Pasteur, Koch, and Lister and the new advances in medicine and biology. With remarkably quick understanding he accepted the new evidence that micro-organisms are etiologic factors in certain disease processes.

Before the conclusion of studies at Andersonville, a series of investigations were instituted upon hospital gangrene and smallpox among the hospitals connected with the Army of Tennessee which, at that time, were located in northern Georgia. A form devised by Jones provided for comprehensive evaluation of various diseases of military troops. It can be seen that he was considerably advanced in his concept of the contagiousness of hospital gangrene as well as other diseases despite his failure to accept the causative role of bacterial organisms. He states that during the month of July and August, 1864, 824 cases of hospital gangrene were treated in the general hospitals attached to the Army of Tennessee, 26 of which proved fatal. He felt that at least 50

per cent of the patients with this disease were permanently disabled. He also stated "as far as my experience extends from the personal inspection of the sick and wounded in many of the general hospitals in the Army of Tennessee, I feel assured that this estimate is below the truth. For many cases of hospital gangrene occurred and were not entered upon the sick report. These cases were entered simply as gunshot wounds, even when the diseases supervened; the facts of supervention were in many cases, we might say, almost in the majority of cases in certain hospitals, not recorded at all. I think it would be fair to assume that during the months of July, August, September and October, 1864, about 3,000 cases of hospital gangrene occurred among the wounded of the Army of Tennessee and of this number about half or 1500 were disabled permanently by the disease. Surely everything connected with history and treatment of a disease so destructive to the efficiency is worth investigation."¹⁷

Dr. Jones also drew loose comparisons between gangrene, smallpox, typhoid fever, and surgical fever or tetanus. He also attempted to determine the etiology of cerebrospinal fever²² and studied the influence of consumption as well as the extent of alcoholism among troops.²⁴ He also attempted to reproduce hospital gangrene in experimental animals (dogs).⁷

The United States Government at the close of the War seized the papers of Dr. Jones relating to Andersonville and ordered him to attend the trial of Dr. Henry Wirz, commandant of the Confederate Military Hospital at Andersonville, in the old Capitol Building in Washington. It should be noted that an editorial pencil had deleted paragraphs, sentences, and words from the original report which would seem to give some justifying circumstances for the conditions described.⁵ At Wirz' trial the charge was made that Confederate surgeons practiced "spurious" vaccinations with smallpox vaccine known to be infected on Federal prisoners at Andersonville. Dr. Jones was questioned severely at the trial by Colonel N. P. Chipman, The Judge Advocate, and was accused of charlatanry, and referred to as an "arch fiend and prince of scientists."^{18, 22} Chipman refused to admit that

the court had no jurisdiction because it violated the terms of the surrender.²³ The "Georgia surgeon" referred to in the following newspaper account²⁴ which is included in his personal effects, was undoubtedly Jones.

No one knows so well as the Secretary of War how much foundation there is for this belief. That there is some foundation for it is proven by the following truthful statement: One of the most truthful and reliable men in Georgia, an eminent surgeon, was summoned to Washington as a witness for the prosecution. Supposing the Judge-Advocate was desirous only of getting at the truth, he went to him before he was put upon the stand, and stated to him that the vaccine matter used upon the prisoners at Andersonville was introduced into the South from abroad, and was used upon women and children in the country just as it was at the prison, and with precisely the same effect, until it was discovered to be deleterious. This statement was made to disabuse the mind of the Judge-Advocate of the impression that an unfit article of vaccine matter had been used upon the prisoners for the purpose of destroying them. And yet the Judge-Advocate failed to interrogate the witness upon this point when he put him on the stand! Nay more, when the witness was subsequently recalled by the defense and asked to explain the matter, the Judge-Advocate used all his legal ingenuity to prevent the truth coming out!

Wirz was court-martialed before the Federal Court of Investigation immediately after the close of the War and executed on November 6, 1865.

In 1866, Jones accepted a professorship in the Institute of Medicine in the University of Nashville where he also held the chair of Pathology.² He also served as co-editor of the Nashville Journal of Medicine and Surgery²⁵ as well as Chief Health Officer of the City of Nashville.¹⁸ A quotation from the Southern Medical Journal of 1866 states, "Dr. Jones has an enviable celebrity upon both continents and the University of Nashville has been most fortunate in securing his great ability." Here the labors for some of his better known works were carried out. He summarized his studies on "spurious vaccination" occurring in the Confederate Armies¹⁰ and completed a comprehensive analysis of mortality and morbidity among southern troops.¹¹ Here he began his important archeological investigation of aboriginal remains in Middle Tennessee. The results of these studies were published by the Smithsonian Institute¹² and are still re-



Joseph Jones

garded as the standard reference in this field of endeavor.

Dr. Jones removed to New Orleans in 1869* where he was elected to the chair of Chemistry and Clinical Medicine in the Medical Department of the University of Louisiana and became attached to the Charity Hospital as visiting physician, serving in this capacity until 1894.²

In April, 1880**, he was elected president of the Board of Health of the State of Louisiana, his term of service expiring in April, 1884.¹ During the years 1880-1883 he established the fact that yellow fever could be excluded from New Orleans and the Mississippi Valley by a rigid and effective quarantine. During the period, 1880-84, 4,436 vessels, more than half of them being ocean steamers, together with their crews and passengers, were inspected by the officers of the Board of Health at the Mississippi Quarantine Station, and during the same period 479 vessels from ports infected with yellow fever were held in the Mississippi quarantine, disinfected, and fumigated. At

*Another source (1) gives the year as 1868.

**Another source (13) gives the year as 1878.

the Atchafalaya and the Rigolettes quarantine stations an equally large amount of work was accomplished making in all about 10,000 vessels and not less than 150,000 passengers inspected and disinfected.¹

After a continuous battle of four years' duration in which the vast maritime and railroad interests of the southern states were marshalled against the legally constituted health authorities, the Board of Health of the State of Louisiana achieved a memorable and signal victory on January 21, 1884. The decision of the Supreme Court of Louisiana is of interest and importance to every state and municipal government in the United States of America for the doctrine is hereby clearly recognized that the establishment and enforcement of quarantine of commerce is not in violation of the provisions of the Federal Constitution, but is a legitimate exercise of the police powers of the individual states which are inalienable. The Supreme Court of the United States in several appeals upheld this decision based on the views and actions of Dr. Jones in his official capacity as president of the Board of Health.

Dr. Jones had always been interested in malaria but, despite his voluminous writings on this subject, referred too rarely to his original and fundamental observations on the micro organismal cause of malaria. The first published account of these is in 1876 (he had first reported on the marked destruction of erythrocytes in the disease in 1858,¹⁹) but there is reason to assume that the observations had been made earlier.¹⁸ At the Ninth International Medical Congress in Washington in September, 1887, he laid claim to being the discoverer of the malarial parasite. As proof of this he put into the record the full text of his paper which had been published in the *New Orleans Medical and Surgical Journal*²⁰ in August, 1878, entitled: "Medicolegal Evidence relating to the detection of Human Blood," presenting the alterations characteristic of Malarial Fever, on the clothing of a man, accused of the murder of Narcisse Arrieux, December 27th, 1876, near Donaldsonville.

As a result of his examination of blood from Narcisse Arrieux he decided that the murdered man had been or was suffering from intermittent malarial fever, and he

reached the conclusion that the blood from a stain on the shirt of one of the men suspected of having had a part in the murder showed the same diagnostic changes. These abnormalities were pigmented and hyaline bodies in the white corpuscles of the blood, and also in the red corpuscles. The latter, as now recognized, were the more significant. His description of what he saw is so important that it is quoted in full:

"I observed changes in the blood from the pieces of cloth which lead me to infer that the person from whom it was abstracted had suffered and at that time was most probably suffering with paroxysmal, paludal or malarial fever. This opinion was based chiefly upon the following abnormal substances observed in connection with the *colored* and *colorless* or white blood corpuscles; black pigment of melanaemic corpuscles, varying from 1-10,000 to 1-1000ths of an inch in diameter; conglomerations of these melanaemic particles, in masses of various sizes; colorless corpuscles or leucocytes which contained small granular masses of black pigment. Many of the particles of the melanaemic pigment were spherical, others were irregular and angular, some entirely free, others incased in a hyaline mass; others incorporated with cellular elements which are more or less related to the white corpuscles of the blood." (Italics added.)

As Russell²¹ stated in the Herman M. Biggs Memorial Lecture before the New York Academy of Medicine, Jones was undoubtedly describing malaria parasites.

In the second volume of the "Medical and Surgical Memoirs," Joseph Jones reproduced drawings of these findings, showing very clearly hyaline pigmented forms, and segmenters, in the red corpuscles in blood of malarial patients. Unfortunately those drawings were not published until 1887. Meanwhile, in 1881, Laveran had published his definitive descriptions of the malarial parasites, and to him, naturally, is accorded the credit for their discovery.¹⁸

From these observations it is apparent that Jones was describing the phenomena of phagocytosis. The pigmented particles that he saw in leucocytes in the blood of Narcisse Arrieux in 1872 had been ingested by the process which Metchnikoff described as phagocytosis in 1884. Had he appreciated the significance of this original observation he could be regarded as one of the early proponents of the concept of cellular immunity.

Jones, aware of its use by English seamen

stationed off the African coast, recommended the prophylactic use of quinine for malaria. Although its scarcity and high cost precluded its extensive prophylactic use, it was used in certain localities with positive results.²¹

He laid claim as the first to see the typhoid bacillus in 1862 to 1864 in scrapings from Peyer's patches, mesenteric lymph nodes and in intestinal contents. In his *Memoirs*³ published in 1887 he states: "a careful comparison of the preceding observations upon the micro-organism of the intestinal content and the mesenteries and Peyer's glands and the urine in typhoid, with the subsequent observations of Klebs and others, will justify the claim of the author as one of the discoverers of the micro-organisms of typhoid fever." He had described the micro-organisms and drew pictures of them. These illustrations, were forwarded to the Surgeon-General's Office in Richmond in 1862, 1863, and 1864, and constituted three large volumes. Since this material was destroyed by fire at the time of the burning of the Confederate capital and from the reproductions of the drawings from the original draft retained by Jones which was published in the second volume of his "Medical and Surgical Memoirs," it seems justified to conclude that he had seen the causative micro-organisms in this disease before others made similar observations.^{13, 18, 22}

Dr. Jones was considerably in advance of his time in the utilization of modern medical instruments. As early as 1860 he gave instruction in medical microscopy and had 1,500 anatomic and microscopic preparations available.²³ This is all the more remarkable when we realize that the headquarters of the Union Army Medical Department did not have a microscope until 1863.¹⁷ Although the clinical thermometer was hundreds of years old, there were not more than twenty in the Union Army and, as far as is known, Jones was one of the first surgeons of the Civil War to use this instrument.^{5, 17}

Dr. Jones was a prolific writer and contributed more than 105 papers in medical and scientific publications. Possibly his greatest work is "Medical and Surgical Memoirs" which contains investigations car-

ried out during his lifetime on many various diseases.³ These "Memoirs" are in four large volumes each containing more than a thousand closely printed pages. The volume of medical writing that he contributed is even more amazing in view of the fact that the typewriter had not been invented, the absence of publishing companies in the South in the immediate post-war period, and the rather large cost all of which he bore personally. In addition it was necessary for him to conduct his researches and compose his writings in the midst of the demands of teaching and medical practice. His income was never large. On March 2, 1896, when his estate was settled, the net amount of assets was only \$8,013.63, of which \$7,000.00 was in the form of real estate. He had hoped to sell some of his writings but this wish was apparently never realized to any degree of reality.¹⁸

In 1869, Dr. Jones took an active part in the foundation of the Southern Historical Society, was elected its first secretary and treasurer, and wrote its constitution and plan of action. His advice was sought for the establishment of the Johns Hopkins Hospital in Baltimore. He was a member of the American Medical Association, 1859-1895; of the Academy of Natural Sciences, Philadelphia; vice president of the Numismatic Society of Pennsylvania; honorary member of the American Antiquarian Society; honorary member of the Historical Society of Georgia; honorary fellow of the Virginia Medical Society; honorary member of the Physician's and Surgeon's of Philadelphia; member of the Louisiana Medical Society; visiting physician to the New Orleans Charity Hospital, 1870-1894; president of the Louisiana Medical Society, 1885-1886; president of the Board of Health of Louisiana, 1880-1884; and president of the XIV Section, Public and International Hygiene, Ninth International Medical Congress, Washington, D. C., 1887. He was appointed Surgeon-General of the United Confederate Veterans by General John B. Gordon in 1889. His statistics on the incidence and mortality from disease on the number and classification of medical officers in the Confederate Army was the standard reference to such matters in the immediate post-war years.

His interests were not confined solely to

medicine. Among others, an example of this is his report to the Cotton Planters' Convention of 1860 entitled "First Report to the Cotton Planters of Georgia on the Agricultural Resources of Georgia." As mentioned earlier he maintained a continual interest in archeology. His personal collection of archeological remains contained specimens from Mexico to Pennsylvania. At present most of these relics are in the museum of the American Indian (Heye Foundation) in New York City.¹⁸ In 1870 Dr. Jones, on a visit to Europe, examined the archeological collections, museums and art galleries as well as the hospitals of London, Paris, Edinburgh, and Liverpool.

Dr. Jones married on October 26, 1858, Miss Caroline S. Davis of Augusta, Georgia, who died in 1868. On June 21, 1870 he was married to Miss Susan Rayner, daughter of Rev. Leonidas Polk, bishop of Louisiana, and lieutenant-general in the Confederate States Army. Dr. Jones had seven children: Charles Colcock, Hamilton Polk, Caroline, Mary Cuthbert, Frances Devereux, and Laura Maxwell. His eldest son, Dr. Stanhope Jones, died in 1894 leaving three children, one of whom is Dr. Stanhope Bayne-Jones, formerly dean of the Yale University School of Medicine and recently retired as Technical Director of Research, U. S. Army Medical Department. Dr. Joseph Jones' brother, Col. Charles C. Jones, Jr., was state historian of Georgia and was the author of the standard work "Antiquities of the Southern Indians Particularly of the Southern Georgia Tribes" published in 1873.¹³

Dr. Jones' labors in behalf of the medical

education and in the cause of sanitary science were national in their character. Dr. Benjamin Ward Richardson of London, England dedicated the sixth volume of his original work, "The Asclepaid" to Dr. Jones with the following words, "To Dr. Joseph Jones, Professor of Chemistry and Clinical Medicine in the Tulane University in Louisiana—a model student in medicine always seeking, always finding, always imparting with unwearring industry new and useful knowledge to the great Republic of Medical Science and Art—this the sixth volume of the ASCLEPAID is sincerely dedicated."

Dr. Jones gave up his clinical and teaching responsibilities in 1894 after suffering a cerebral accident on June 23, 1893 which left him with a partial paralysis. He was appointed to the specially-created chair of Chemistry and Medical Jurisprudence. Although his health had been failing for six to eight months his death on February 17, 1896, when he was 63 was unexpected.¹³ He was buried in his family tomb in Lafayette Cemetery No. 1 in New Orleans. In a resolution of the Tulane University Medical Faculty of February 19, 1896, it is stated that "his kindly and soft tones will be missed by the students in the 'green (examination) room' this spring for none more that he seemed to take a personal interest in the prospects of the candidates for graduation."¹⁴

Joseph Jones pursued his life with a high purpose. He was intensely patriotic and devoted to the Confederacy. He was deeply religious and his integrity was never responsibly questioned. He summarized his

Table I

NUMBER OF PATIENTS TREATED IN WARD NO. 5, SECOND DIVISION, C. S. M. P. HOSPITAL, ANDERSONVILLE, DURING THE MONTHS OF JULY, AUGUST, AND SEPTEMBER, TOGETHER WITH FIVE DAYS OF OCTOBER, AND RESULTS OF TREATMENT AS FAR AS KNOWN.*

Present in Ward	Admitted	Sent to Quarters	Detailed	Transferred	Died	Remaining in Ward
July 1	August 1	September 1	October 6	July	August	September
October 6	July	August	September	October 6	July	August
September	October 6	July	August	September	October 6	July 31
August	September	October 6	July	August	September	October 31
October 6	July 31	August	September	October 6	July 31	August 31
September	October 6	July 31	August	September	October 6	September 30
October 6	September 30	October 6	September 30	October 6	September 30	October 6
68	77	72	62	80	106	57
12	0	4	0	7	1	4
6	2	10	15	14	8	66
36	47	7	66	79	62	50

*From Jones (7).

life by the following quotation from Francis Bacon's "Advancement of Learning," with which he introduced his manuscript on hospital gangrene in August, 1865:

"Knowledge is not a couch whereon to rest a searching and restless spirit; or a terrace for a wandering and variable mind to walk up and down, with a fair prospect; or a tower of state for a proud mind to raise itself upon; or a fort or commanding ground for strife and contention; or a shop for profit or sale; but a rich storehouse for the glory of the Creator and the relief of man's estate."¹⁸

Appendix*

The following cases will illustrate the preceding observations upon the changes of intestinal canal in hospital gangrene, accompanied with diarrhea. They will also afford other points of interest, bearing upon the nature and pathology of the disease:

Case XL. J. A. J. Shelton, Lieutenant, Company G, 50th Regiment, Tennessee Vols. Occupation before entering service merchandizing. Wounded at the battle of Jonesboro, Georgia. Right thigh amputated on the field of battle at the lower third.

Received into the Empire Hospital, Vineville, Georgia, August 31, 1864, with gangrene in the stump of the right thigh. The stump was much swollen, and at the time discharged a large quantity of fetid, gangrenous, bloody, dark, almost black matter.

On the 8th of October, when I first examined this patient with a view to study his condition, he appeared to be in extremis. Twitching of all the tendons and muscles of the extremities; rapid, feeble pulse, scarcely perceptible, and also so small and flickering that it could not be counted. Cold extremities. Sallow complexion. Pinched and ghastly features. The attendant medical officer had directed my attention to this case as one presenting strong symptoms of pyaemia. I was so impressed with his low condition, that all hopes of his rallying from this state were abandoned. It was, however, deemed advisable to administer alcoholic stimulant freely, as they had been discontinued for some time before these distressing symptoms manifested themselves.

Under the hourly administration of small quantities of whiskey, the patient rallied, and for several days appeared to improve; the stump also diminished in size, and appeared to be undergoing some favorable changes.

The discharge, however, from parts of the stump was quite great, and extensive sloughing continued along the back of the thigh. Obstinate and

exhausting diarrhea set in, and the patient died October 23.

Post-mortem.—Exterior.—The anterior and upper portions of the wound appeared to be free of gangrene, and presented a granulating surface. The posterior portions of the thigh were in several places gangrenous, and the denudation of skin and muscles had extended for near ten inches up towards the buttocks.

The femoral vein and artery were carefully dissected out. The ligated end of the artery was closed by a firm fibrous coagula, one inch in length, and composed of alternate layers of fibrin. The femoral vein was occluded at its lower extremity, and its diameter for several inches above the wound was greatly diminished. The occlusion of the vein was not accomplished by the formation of the fibrous clot, as in the case of the artery, but by the firm adhesion together of the walls, forming a fibrous ribbon of the formerly hollow blood-vessel. A large fibrous clot was discovered in the main branch of the femoral vein which conveyed blood from the parts in the back of the thigh which had been so extensively involved in the slough. This clot was likewise firm, and composed of layers of fibrin. The clot did not completely occlude the vein, and a small stream of blood evidently passed from the parts to which it had been distributed.

This observation is important, as illustrating the mode in which important blood-vessels are sometimes occluded during the progress of gangrene, even for some distance from the seat of the disease. The occlusion may account for the sudden and great swelling which sometimes occurs in hospital gangrene. If the vein be a large one, this occasion may also accomplish beneficial results by preventing the admission of air and of pus directing into the blood through the eroded end of the vein in the gangrenous or sloughing wound. It is probable that many cases of gunshot wound would terminate in pyaemia, if nature did not thus close by fibrinous clots the channels through which the products of the disintegrating tissues might enter. This subject offers a wide field for investigation, and much light might be thrown upon the nature of pyaemia and of sudden blood poisoning, by a careful examination of the blood-vessels in all fatal cases of gunshot wounds. If in large suppurating wounds nature ordinarily prevents the entrance of deleterious matters into the blood by occluding the veins in this manner with fibrinous clots, before their coats are eroded, the question naturally arises, whether in pyaemia the veins have at any time been occluded, and if they have been, what has destroyed the barriers to the entrance of the pus? If the veins have not been occluded, what is the condition of the blood which has prevented the formation of these fibrinous masses? Do not these questions indicate the direction in which we may seek for the explanation of the fact that pyaemia is most likely to occur in the crowded atmosphere

*From Jones (7).

of the hospital, and in those the constitution of whose blood has been depraved by bad diet, vicious habits, and foul air, and by unhealthy suppurating or gangrenous wounds? This question will manifestly involve the determination of the effects of foul air, and of various organic matters absorbed from unhealthy wounds, upon the constitution of the blood, and especially upon the quantity and quality of the fibrinous constituent.

Abdominal Cavity.—Spleen enlarged about twice its natural size, but firm in structure, and changed to the arterial hue when exposed to the action of the atmosphere. Under the microscope, the blood corpuscles and mud of the spleen presented the normal appearance, and no black masses, as in the malarial spleen, were observed. The microscopical examination revealed nothing abnormal in this organ. The enlargement of the spleen appeared to have been of long standing, and not connected with the gangrene.

Liver normal size and in the consistence of its structures, and only a little paler than usual. Under the microscope, the liver cells looked pale and devoid of fat in a great measure. This patient was greatly emaciated, a mere skeleton, and the absence of oil globules, or rather the diminution of the quantity usual in cases terminating fatally in acute diseases, before there had been extensive wasting of the tissues, appeared to be nothing abnormal, but simply the effects of the long-continued and progressive consumption of the hydro-carbons of all the tissues. The abdominal muscles were without any layer of fat, and the mesentery and omentum were in like manner without any, or rather with very little fat.

Gall-bladder distended with yellow bile.

Alimentary Canal.—Stomach pale and healthy; mucous membrane pale, and with no abnormal appearance. Mucous membrane of duodenum and jejunum healthy in color and consistence.

The ileum presented many congested portions, especially towards the ileocecal valve. The congestion of the mucous membrane of the ileum was not uniform; many portions presented a healthy appearance.

Plate No. XXVII.¹ represents the appearance of a portion of the ileum, near the ileocecal valve.

The portion from which this drawing was made, was one of the most congested parts of the intestinal tract.

Peyer's and the solitary glands, as well as the mesenteric glands, were unaffected,—neither engorged, enlarged, nor inflamed nor softened.

The ileum contained much tenacious yellow mucus and fetid yellow faeces. Under the microscope, the contents of the bowels presented nothing unusual, or of special interest. No living animalcules were observed.

When the mucous membranes of the intestines were floated in water, and examined with a magnifying power, the capillaries of many of the villi

and of the high-colored spots of the mucous membrane were found to be engorged with red blood. I observed during these examinations no abrasion, ulceration, or solution of continuity in any part of the mucous membrane.

The large intestine was filled with thin, yellow fetid faeces, and the mucous membrane presented a healthy appearance, without any ulceration.

The diarrhea in this case appeared to have been due to the irritant action of the matters absorbed from the gangrenous tissues. As we have before remarked, in many cases of hospital gangrene recovery is preceded and accompanied with diarrhea, which appears to be salutary in its effects, and leaves no permanent lesion of the intestinal mucous membrane; whenever, however, the bowels are uncontrollable for a length of time in this disease, a fatal issue almost invariably follows.

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 Meriwether, Thomas W., III, Memphis
 White, Thomas R., Whitwell
 Cheij, Abraham P., Cincinnati, Ohio
 Caldwell, Benjamin M., Jr., Humboldt
 DiNelle, Ronald R., Nashville
 Haley, Robert L., Jr., Augusta, Ga.
 Merritt, Cullen R., II, Nashville
 Muldrow, Louis M., Jr., Jasper, Ala.
 Bradley, Ben H., Texas
 Hilbun, William B., Lenoir City
 DeMinico, Charles P., Memphis
 Rowe, William E., Chattanooga
 Miller, George L., Jr., Memphis
 Kilpatrick, William H., Crossville
 Dixon, Gardner L., Nashville
 Stone, William P., Jr., Springfield
 Steranka, Joseph, Nashville
 Snyder, Harold E., Nashville
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 Ravitz, S. Peter, Brooklyn, N. Y.
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 Wheeler, William G., Jr., Nashville
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 Murray, Henry D., Old Hickory
 Stumb, Paul R., Atlanta, Ga.
 Holt, Richard B., Frankfort, Ky.
 Swinyar, Theodore C., Collegedale
 Waldron, Jimmie F., Memphis
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 Munn, William G., Mendenhall, Miss.
 Burns, Richard G., Memphis
 Covington, Shirley S., Lenoir City
 Farmer, Richard G., Memphis
 Kennedy, Jerry R., Memphis
 Sammons, Lehman C., Jr., Memphis
 Susong, Kenneth C., Greeneville
 Bernstein, William M., Nashville
 Cohen, Lawrence S., Shaker Hgts., Ohio
 Edwards, Robert H., Nashville
 Harris, Buford T., Lawrenceburg
 Moorman, Robert S., Jr., Birmingham, Ala.
 Partain, Jonathan O., Nashville

ANNOUNCEMENTS

Newly Licensed Physicians in Tennessee

The following doctors of medicine have been licensed by the State of Tennessee:

Blumen, Herbert, Memphis
 Gammill, James C., Nashville
 Eslick, Ralph L., Paris
 Clossa, Gerald A., Nashville
 Crawford, Alvin S., Bristol
 Brakefield, James M., Nashville
 Blanton, Frank S., Jr., Bristol
 Widuch, Maria B., Donelson
 Terry, Robert T., Nashville
 Hays, Robert D., Athens
 Ginsberg, Julius E., Chicago, Ill.
 Stephens, Joseph W., Waverly
 Crockett, Douglas H., Johnson City
 Mitchell, Edwin H., Nashville
 Triplett, Rodney F., Memphis
 Erickson, Richard J., Knoxville
 Chappell, Ewin S., Memphis
 Walker, William W., Jr., Memphis
 Morgan, Albert B., Somerset, Kentucky
 Lang, Erich K., Baltimore, Md.
 Moore, John H., Bridgeport, Conn.
 Wirth, Wolfgang A., Norfolk, Va.
 Kleckner, Martin S., Jr., Paducah, Ky.

New Orleans Graduate Medical Assembly

The Assembly will be held March 6-9, 1961 at the Roosevelt Hotel in New Orleans. Guest speakers will be:

Arthur S. Keats, M.D., Houston—Anesthesiology
 Robert R. Kierland, M.D., Rochester, Minn.—Dermatology
 Frank B. McGlone, M.D., Denver—Gastroenterology
 Thomas T. Jones, M.D., Durham, N. C.—General Practice
 John C. Ullery, M.D., Columbus, Ohio—Gynecology

Walter Lyon Bloom, M.D., Atlanta—Internal Medicine

Herman J. Moersch, M.D., Rochester, Minn.—Internal Medicine

William A. Sodeman, M.D., Philadelphia—Internal Medicine

Jack A. Pritchard, M.D., Dallas—Obstetrics

Daniel Snyderacker, M.D., Chicago—Ophthalmology

Leon L. Wiltse, M.D., Long Beach, Calif.—Orthopedic Surgery

Sam E. Roberts, M.D., Kansas City, Mo.—Otolaryngology

S. E. Gould, M.D., Eloise, Mich.—Pathology

Stuart S. Stevenson, M.D., Jersey City, N. J.—Pediatrics

Harry E. Bacon, M.D., Philadelphia—Proctology

Albert Jutras, M.D., Montreal, Quebec, Canada—Radiology

Robert J. O. Coffey, M.D., Washington, D. C.—Surgery

Harwell Wilson, M.D., Memphis—Surgery

Thomas E. Gibson, M.D., San Francisco—Urology

American College of Chest Physicians

The Interim Session of the College will be conducted at the Shoreham Hotel in Washington, D. C., November 26-28. The scientific sessions will be held on Saturday and Sunday, November 26 and 27. A highlight of the program will be the Fireside Conferences on Sunday evening, November 27. In addition, there will be three round table luncheon discussions on both Saturday and on Sunday. These will feature prominent speakers discussing various aspects of heart and lung diseases.

A Post Graduate Medical Symposium

A symposium sponsored by the Tennessee State Medical Association and Vanderbilt University Medical School, will be conducted at the Medical School on Thursday, December 15th. "Selected Topics in Internal Medicine" will be featured and the Symposium will be acceptable by the Academy of General Practice for Six Hours CATEGORY I Credit. More detailed information will be in the mail within a few days.

A.M.A. Symposium on Nutrition

This symposium, sponsored by the Council on Foods and Nutrition of the American Medical Association in cooperation with The Medical Society of the District of Columbia, will begin at 8:30 a.m. Wednesday, November 30, in Room B of the National Guard Armory. The meeting will be opened to all interested persons. The program consists of: Panel I—The Diagnosis of Nutrient Deficiencies, moderated by Dr. John B. Youmans,

Director, Division of Scientific Activities, American Medical Association. A. The Clinical Appraisal by Physical Examination, Dr. William J. McGanity, Department of Obstetrics & Gynecology, Medical Branch, University of Texas; and the Appraisal by Anthropometric Evaluation, Dr. Stanley M. Garn, Physical Growth Department, The Fels Research Institute; The Dietary Appraisal, Dr. George V. Mann, Associate Professor of Biochemistry, School of Medicine, Vanderbilt University; The Management of Dietary Inadequacies, Principles—Food or Supplement? Dr. Robert L. Jackson, Department of Pediatrics, University of Missouri; and a Round Table Discussion—Can the Physician Bring About a Correction of Dietary Habits? Dr. Robert E. Olson, Department of Biochemistry and Nutrition, Graduate School of Public Health, University of Pittsburgh, and Doctors Jackson, Mann and McGanity.

"Strike Back at Stroke"

This is a reprint of a U.S.P.H.S. publication which is now being distributed by the American Heart Association in smaller format. The booklet contains a series of therapeutic exercises for the stroke patient. These exercises, incidentally, were developed by experts in the field of medical rehabilitative therapy. Simple instructions accompany the step-by-step illustrations of each exercise, and space is provided for recording the frequency and duration of the exercises.

Although the cost of the booklet prohibits our making it available to you in bulk, we can provide copies for the patients for whom you request it. Simply write *Strike Back at Stroke* on one of your prescription forms, together with the name and address of the patient, and it will be forwarded to him promptly.

Write to Middle Tennessee Heart Association, Nashville.

Postgraduate Course in Pediatrics at Vanderbilt University School of Medicine

The Pediatric Department at Vanderbilt University School of Medicine announces another Postgraduate Day for Thursday, December 1, 1960 to be held at Vanderbilt University Hospital, beginning at 9 a.m. Pediatric concepts which have been clarified in the last few years will be discussed, as well as other recent advances in prevention and treatment. Interesting clinical material on the Service at the time will be presented. The course is approved for 7 hours of Category I credit by the American Academy of General Practice. Tuition is \$15.00 which includes the luncheon. For further information address the Department of Postgraduate Instruction, Vanderbilt University School of Medicine.

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A 33 year old married physician. Presbyterian. Graduate University of Madrid, Spain. Board eligible in neurosurgery. Desires associate or assistant practice in neurosurgery in Tennessee community of 100,000. Available immediately.

LW-342

A 38 year old married physician. Methodist. Graduate Vanderbilt University. Desires assistant, associate or clinical practice in ob-gyn in east or middle Tennessee community of 30,000-150,000. Available immediately.

LW-346

A 26 year old married physician. Lutheran. Graduate Medical College of Virginia. Desires clinical or group-type general practice in east Tennessee community of 5,000-25,000. Available immediately.

LW-368

A 28 year old married physician. Presbyterian. Graduate University of Tennessee. Desires clinical, assistant or associate general practice location in Tennessee community of 5,000 or more. Available immediately.

LW-370

A 37 year old married physician. Methodist. Graduate University of Tennessee. Desires private practice in general surgery in Tennessee community of 20,000 to 50,000. Available immediately.

LW-373

A 32 year old married physician. Episcopalian. Graduate Vanderbilt School of Medicine. Board eligible. Desires clinical, associate or assistant practice in internal medicine in community 100,000 or over. Available July 1961.

LW-383

A 30 year old married physician. Protestant. Graduate Jefferson of Philadelphia. Specializing in Pathology, wishes to locate in east Tennessee community of 35,000-100,000. Will consider assistant or associate practice. Available July, 1961.

LW-384

A 26 year old single general practitioner, Methodist. Graduate of the University of Tennessee. Desires location in middle or west Tennessee community of 5,000-10,000. Will consider clinical practice. Available August 1961.

LW-386

A 34 year old married physician. Methodist. Graduate University of Tennessee. Desires to establish general practice in east or middle Tennessee community of 10,000 or over. Will consider clinical practice. Available immediately.

LW-389

A 35 year old married physician. Protestant. Graduate University of Colorado. Desires to locate in east or middle Tennessee community 8,000-10,000 in the practice of internal medicine. Will consider assistant, associate or institutional practice. Available immediately.

LW-390

Physicians Wanted

Physician in middle Tennessee town of 200,000 desires an associate general practitioner. Office space and equipment available.

PW-130

Physician in northeast Tennessee community of 5,000 desires general practitioner to associate with him in his practice in northeast Tennessee and southern Kentucky. Hospital located in community. Office space and some equipment available.

PW-132

Small central Tennessee community of 1,000 desires general practitioner. No other physician in community. Fully equipped six room clinic available. Two hospitals located 14 miles away.

PW-133

Physician in east Tennessee community of 6,000 desires an associate general practitioner. Age 25-35 with one year internship. New private office, examining rooms and equipment available. Hospital located in community.

PW-134

Physician wanted in middle Tennessee community of 12,000 to assume established practice. Two 25 bed open staff hospitals and completely equipped office. Good churches and schools, close to good recreational area. Good agriculture and small industry area.

PW-140

Fully equipped ten room clinic available in east Tennessee community of 5,000. New hospital. Clinic large enough to accommodate two physicians. All office equipment and records included. Present M.D. leaving for residency training.

PW-141

Clinic in east Tennessee community of 5,000 has opening for board eligible internal medicine physician. Newly constructed and fully equipped clinic.

PW-143

Physician in middle Tennessee town of 200,000 desires associate or independent internist or GP. Office space and equipment provided.

PW-146

Southeastern community of 10,000 in need of general practitioner. Office space available with six months rent free. Eighteen miles from large city. Good location.

PW-154

Clinic in large, middle Tennessee city in need of two physicians; one GP and one internal medicine. Must be board eligible. Good salary for period of one year, with chance of association after that time. Excellent opportunity.

PW-155

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The control of infections occurring within the walls of a hospital requires constant vigilance and attention to details.

Control of Hospital Infections

J. L. Farringer, Jr., M.D., Nashville, Tenn.

The medical literature over the past four or five years has been amply sprinkled with reports on methods of controlling hospital infections.¹⁻⁶ Most of this literature has been directed at staphylococcal infection which appears from all reports to have been the most prevalent. Included in this literature are many experimental and laboratory control studies and it is not the purpose of this paper to detail these experimental and laboratory studies. Rather I am going to consider some practical problems and the answers which have been worked out to these problems. To make this of real practical value I will in many instances name brand names. This does not indicate that this is the only brand which is available or necessarily the best brand available for the purpose I am attempting to accomplish. However this, in most instances, will indicate what has proven in my hands to be a satisfactory product for the purpose for which I have used it.

If one is to control infections in a general hospital one must control the environment of the patients. The environment of the patient consists of the ocean of air which surrounds the patient, his clothing, the utensils the patient touches, the furniture within his room, the floor of the hospital, and the persons with whom the patient comes in contact. Of course instruments which are used in treatment and operations upon the patient must also be considered a very important part of the patient's environment.

Control of Air

Perhaps the most difficult item of the patient's environment to control, without enormous outlays of money, is the air which surrounds the patient. However, the air

surrounding the patient is greatly affected by the other objects within the patient's environment. Air in critical areas, such as the operating room, the delivery room and the nursery, should be subjected to filtration as a means of controlling infections. The air-conditioning system should be of a forced-air type and should not recirculate the air. There should be a good filter in the air-conditioning unit. One we have used and which appears to be effective is the Aerosol 95, manufactured by Cambridge Filter Corporation. It is considered important that all air entering the critical areas be brought in under pressure, so when a door is opened into a less critical area, the air flow will be from the operating room outward and thereby force out air which is in the operating room.

In many instances the installation of an extra door or two, particularly to wall off stairwells, which act as chimneys for the flow of bacteria laden air from one area to another, will do much to cut down the spread of bacteria throughout the hospital.

General Housekeeping

The general housekeeping within the hospital plays a very important role in reducing the reservoirs of bacteria within the hospital. It is most important that the methods used in the housekeeping department not provide growth media for bacteria. Dry mops should be chemically treated or covered with a cloth that can be changed daily or more often. The wet mops should be laundered after each day's use, since there is a great increase in bacteria in the mop on standing overnight. Mop water should be changed frequently and the detergent used in the mop water should contain a

chemical bactericidal agent. A commercially available antiseptic detergent which appears adequate for this is Tergisyl manufactured by Lehn & Fink.

Each room should be thoroughly cleaned after a patient is discharged from it. This should include mopping of the floor and the washing of all furniture with an antiseptic detergent. The plastic mattress cover should be washed with a cloth dampened in antiseptic detergent solution and rinsed and dried. The blankets as well as the linen should be sent to the hospital laundry.⁷ Blankets can be sterilized by presoaking in Amphyl. It is recommended that each blanket be sealed in a plastic bag after sterilization and returned to the floor in this container. This readily distinguishes between the freshly laundered blankets from the used blankets. Of course nursing personnel should not trade blankets between patients.

Armour and Company makes a product for washing linen which renders the linen bactericidal for several days after being washed. This prevents the accumulation of bacteria during the shelf-life of the linen.

Isolation Technics

Rooms housing patients with infectious disease must be converted into private rooms as soon as the nature of the infectious case is discovered. All personnel entering isolated rooms must wear masks and gowns, and those handling the patient or the fomites must wear gloves, preferably of a disposable type. A surgical soap dispenser which is operated by foot pressure should be placed in the isolated room.

Patients having grossly infected surgical wounds should not be in rooms with other postoperative patients, especially patients with open wounds, such as burns or those who have drainage tubes in place. Soap dispensers should be placed in rooms wherein infected wounds are being housed. Special dressing trays should be provided for dressing these cases. Personnel changing bed linens should wear masks and gloves to prevent them from becoming carriers.

Linen should be placed in a bag in the room and taken directly to the laundry and not be mixed with other linen from that floor. When a patient is discharged from

an isolated room the following steps should be carried out in the order named:

1. All linen, blankets and curtains should be removed and placed in a bag and sent directly to the laundry.
2. Plastic mattress covers washed on both sides with an antiseptic detergent solution, if plastic mattress covers are not used the mattress should be sent for renovation.
3. Blinds or window shades should be removed and sent to be cleaned.
4. All furniture should be washed with antiseptic detergent solution and then removed from the room temporarily.
5. Walls should be sprayed with a chemical bactericidal agent or washed with an antiseptic detergent solution.
6. The floor should be cleaned with an antiseptic detergent solution using the wet pick-up technic.

After this cleaning the room is ready for immediate occupancy. It is not believed that closing these rooms for days has any beneficial effect.

Central Supply

The technics and supplies used in the central supply department affect all patients in the hospital. In many hospitals solutions of various kinds are in use for "sterilizing" rubber goods and some metal instruments, especially sharp instruments. We have cultured large numbers of bacteria from the solutions in which sterilization was being attempted in some areas of our hospital. The only solution from which we have not been able to grow bacteria is 1:1000 mercuric cyanide solution.

Inasmuch as the introduction of bacteria into the bladder by catheterization can constitute a problem in a hospital, we have undertaken the culture of catheters as they are stored in the central supply room prior to issue. These catheters have been cut into small pieces and placed in an aseptic manner into culture media. In our hospital we have not found that bacteria grew from these autoclaved catheters. Catheters are soaked for thirty minutes in a detergent before being autoclaved.

Periodic cultures should be made of dressing trays, gloves and any other materials

which are sterilized in the central supply room and issued for use as sterile.

We have recommended that a special dressing tray for dressing grossly infected wounds be set up to contain the following items:

1. Bottles of ether, alcohol, and a surgical tincture.
2. Culture tube containing a sterile swab.
3. Packaged sterile dressings in the amount of twelve 4 by 8 sterile dressings and two combination pads.
4. Two pair of disposable gloves; one for the physician doing the dressing and one for the nurse assisting.
5. An impervious bag either of plastic or water proof paper for the disposal of the dirty dressing.
6. Separately packaged instruments consisting of thumb forceps, a hemostat, and a pair of suture scissors.
7. A package of sterile cotton balls.

We have been concerned about the migration of infections up the tubing used to deliver urine from a Foley catheter to a bottle on the floor. It has been our observation that an open bottle on the floor is frequently kicked over and that the tubing will in some instances be dragged across the floor and then replaced in the bottle where urine accumulates and serves as an excellent culture medium for bacteria. We are currently using a plastic bag which attaches to the bed and is not subject to being knocked over. We consider this only a partial answer to the problem and have sent diagrams to two companies manufacturing plastic bags with a request that they make a sealed bag which will be delivered to the hospital sterile, and which will have a connection so tubing can be attached to the bag. Thus, there would be no open bag and no contact between the urine within the bag and the tubing leading to the Foley catheter.

Operating Rooms

Adams² states that "nine-tenths of the contaminations that cause wound infections are believed to arise in the operating pavilion area, from entry into the wound of germs from the air or from fomites about the personnel and patients, including those of the patient's skin." It therefore becomes necessary to give special attention to the

cleaning of the operating rooms and to the maintenances of sterility within the operating room.

Air-conditioning and filtration should be a year around process in the operating room area. There should be no recirculation of the air, not only from an infections standpoint but because recirculated air increases the hazard of explosion. Clean outside air should be brought into the conditioning system. This air should be filtered either by an effective dry filter or by an oiled filter which has had an oil soluble quaternary ammonium compound added to it. Such a compound is "Wet Mint" manufactured by Hysan Manufacturing Company.

The floors must be mopped with clean mops using freshly made-up cleaning solutions containing an antiseptic detergent such as Tergisyl (Lehn & Fink), Amphyl (Lehn & Fink), O-Syl (Lehn & Fink), Staphen (Vestal Laboratories), San Pheno X (Huntington Laboratories), Stantophen (Dubois Co., Inc.), Floromycine (Franklin Research).

We have been using a wet pickup technic as follows: At the end of each operation the operating table and all wheeled furniture is removed from the operating room. The suture ends and dry litter are removed from the floor with a vacuum cleaner. One fourth of a pail of water containing an antiseptic detergent such as Tergisyl or Floromycine is poured in the center of the room in the region of the table, the area of greatest contamination. This area is scrubbed with a clean, freshly laundered mop. The remaining three-fourths of the solution is then poured onto the floor and the rest of the floor scrubbed with the clean mop.

The antiseptic detergent solution is removed from the floor with a wet vacuum apparatus. A large size wet vacuum is recommended for hospitals having more than three or four operating rooms. Some hospitals may need more than one vacuum to reduce delay between cases. This vacuuming leaves the floor nearly dry and is carried out except for a pool of solution which is left at the door.

The wheeled furniture and the operating table are rolled through the solution as they are returned to the operating room. Then

this pool is picked up with the vacuum machine.

Once each day a dry vacuum cleaner is used on all walls, window sills, window frames, door facings and frames and lighting fixtures. Once each day, and after "dirty" cases, the walls are washed with an antiseptic detergent solution, as is the operating light. Once daily the strings are removed from the hubs of all wheeled furniture and all furniture is removed from the operating room for a thorough cleaning. We have found it practical to have this daily thorough cleaning done at night.

Doors to operating rooms should be kept closed except when someone is entering or leaving the operating room. The practice of operating with the door open so that one can "socialize" with other persons in the corridor is to be condemned.

Since no practical way has been devised for sterilizing shoes, the use of shoe covers having impervious soles is recommended. It is our opinion that the operating room shoes become a culture medium, and worse than the street shoes unless they are actively cleaned on both top and sole after each wearing, and that even when this is done freshly laundered shoe covers still should be worn. A door mat or rug saturated with an antiseptic detergent solution should be provided at each operating room door for the cleansing of the soles of the shoe covers as one enters the operating room.

Fitted filter type masks provide a great deal more protection of the operating room air and the patient's wound from exhaled bacteria than do the standard cloth masks. These we have purchased from the APSCO Corporation in Wolfsboro, New Hampshire. They have not been well received by the surgeons however, as they are somewhat uncomfortable.

The delivery rooms should be subjected to the same kind of cleaning and control as the operating rooms. The nursery floors should have a daily cleaning with an antiseptic detergent solution using the wet pick-up technic and the walls should be washed at weekly intervals with such a solution.

The technics and materials discussed are of necessity somewhat more time consuming and expensive than the ordinary housekeeping methods. However, since more bacteria become resistant to the available antibiotics our patients have a right to expect us to develop new and better technics for their protection. Our hospital personnel are entitled to maximum protection against occupational hazards. When one weighs the time and money necessary in carrying out these technics one must balance it against the morbidity, and risk of life or limb not to mention the time consumed and material used in dressing infected wounds.

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STAFF CONFERENCE

Central State Hospital*

Sociopathic Personality

DR. WILLIAM F. ORR: The patient to be presented today is probably not at all unusual. There are most likely hundreds of people in the state penitentiary with similar kinds of life stories and psychodynamics. The reason for presenting this commonplace problem is (1) people, like our patient today, are seen in psychiatric settings infrequently, (2) this patient does highlight the need for greater understanding of the relationship of Criminology and Psychiatry.

MR. SAMUEL LEE (Medical Student):

Presenting Complaint: This is the first Central State Hospital admission of this 42 year old white woman who claims to be a registered nurse. She was brought here from the county jail where she has been detained for writing bad checks. The patient has written numerous bad checks on previous occasions since the death of her son, but does not know why she has done this and feels that she needs psychiatric help.

Though much of her history is not corroborated by her family, she gives the following story. When she was much younger, she wrote a bad check on her father's account. In 1953 she was "going with" a married man who gave her permission to write checks on his account. The man's wife discovered this, but the man admitted he had given her the permission, so no charges were pressed.

In February 1955 her son was killed at the age of 15 in an automobile accident. In October of the same year she wrote several bad checks buying dishes, record players, a refrigerator, and an electric stove which she did not need and rarely used. She was arrested and was sentenced to prison for forgery for one year. Nine months later she was released for "good behavior." Her prison term terminated in June 1956.

In November 1958 she "started buying things" including lamps, three TV sets, two sewing machines, draperies, giving bad checks for these purchases. She was again arrested and was sentenced to the penitentiary for two years of which she served 17 months and came out on good behavior on July 3, 1960.

After her prison term she sought work unsuccessfully in several local hospitals. When she answered a want-ad for a job at a local church she found a personalized check book, took it and wrote checks on the name. During the next months she bought a typewriter, a sewing ma-

chine, a hi-fi set, a TV set and a tape recorder, and in all issued checks amounting to \$3,000.

When she was arrested in September of this year, it was decided by her attorney, mother and others, that she needed psychiatric help and she was referred here to Central State Hospital.

In describing her feelings about this she says there is a drive which makes her do these things and which she tries, usually unsuccessfully, to resist. Immediately after each buying spree she feels like "a constipated person after a good B.M.," but soon afterwards regret and remorse overtake her and she feels quite miserable.

Personal History: Birth and Infancy. She was born in a small town in a nearby state, the fifth of six children. Their family life "was neither happy nor unhappy, but was rather indifferent." She denies witnessing any quarrels between her parents, who were very strict. Father seldom punished her but her mother whipped her and she thinks now she deserved most of the whippings.

School: She began school at age 5 in this small town and finished high school in a large city in 1935 at the age of 18. She made average, or somewhat below, grades. She related well to teachers except some "old maids" and male teachers who "tried to make her." Though she was comfortable with her school mates, she had only one very close girl friend. She was active in school activities such as basketball, tennis, baseball, and was on the debating team. She liked dancing but had to do this secretly for her parents' strong conviction against such things as dancing and smoking. She dated while in school and went with one boy on and off for three years.

Vocational Adjustment: She wanted to be a nurse and entered a school of nursing, graduating three years later at the age of 21 in 1938. Her marriage took place during the last year at school. (All of the story of her nursing career is untrue according to family.) She did not work directly after graduation because of her first pregnancy, although she did some private duty nursing and some volunteer charity work. In October 1946 she got a job as a nurse at a hospital where she stayed until she had a miscarriage in 1948. She went back to work in early 1949 on the surgical floor and continued until her arrest for writing bad checks in 1955. After her prison term in 1956, she obtained a job in an East Tennessee hospital where she worked until her second arrest in 1958.

Religion: She was raised in a Baptist family and the parents were very strict and disapproved of many things which they considered sinful. In February 1954 she became a Catholic because she believed in their doctrine. She said that she was reared in an atmosphere that "everything was sin, including dancing, smoking, drinking, and even smiling." Her family was quite disturbed when she changed her religious affiliation; her mother even changed her will leaving her only one dollar, but later relented.

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Her husband was "nothing" and they had many arguments chiefly about church going as he considered Sunday a day for staying in bed.

Sexual Development: She began menstruating at 12. Not knowing what was occurring she thought she was going to die. A Negro maid told her what to do and that it would occur every month. Her parents never discussed sexual matters with her. She thought that babies must have the capacity to grow big over night. She remembers being shown her little brother one morning and was quite surprised.

She tells with little urging and in considerable detail of many sexual encounters during adolescence and fairly regular sexual intercourse after the age of 13. She tells of one homosexual affair while serving her first prison sentence.

Marital Facts: When she was 18 she met a boy 19 years old who worked for her father. They engaged in sexual intercourse and she became pregnant. Her sister "forced" them to get married while their parents were away on a trip. She says that she did not want to marry him and "didn't give a damn about getting married." Sexual relationship with her husband was fairly satisfactory. However, she had had orgasms more regularly with men other than her husband. Between the birth of her daughter and the birth of her first son she was sexually involved with the same man who had intercourse with her when she was 13. After the birth of her first son she went with other men, one of whom, a surgeon, in 1943 became the father of the third child, a son, named after the surgeon. At that time her husband was away in the Navy. She was one month pregnant when her husband returned and she made her husband believe that she became pregnant as soon as he came back. She says that no one knew that this son was not her husband's child.

After 12 years of marriage she obtained a divorce in 1950 because of his mistreatment and was awarded the custody of the three children. Between 1952 and 1953 she and her former husband lived together again for six months pretending that they had remarried, but separated after this period.

The daughter is now 21. She says that her daughter "had gone to hell and high water." She discovered that she was "bisexual" when she ran away from home at the age of 13. She was dressed in boys clothes when police arrested her. Her daughter once told her that her father did not kiss her like a father, and patient has suspected that her husband has some sort of strange relationship with her daughter.

The son born in 1940 "was wonderful." They were like "sister and brother and mother and son at the same time." She says that he would rather take her to a dance than anyone else. He called her "little mama" or "shorty" and they played ball together. He was killed in 1953. After she was told that he was killed she went into a state of shock for two days and did not cry for a long time afterwards.

When her younger son was 7 years old her sister adopted him because the patient was afraid to resist and feared a court trial.

Family Background: Her father was not stern but was very reserved and undemonstrative and she had little to do with him. He died at the age of 52 of a heart attack. She had no feelings and did not feel any sense of loss. The mother, now 76, loves her most of all. She was "very good, sweet, kind, and loving." She thinks she was the ideal mother, they were very close and the patient enjoys her company.

Her oldest sister, now 57, is married and has three children. They are not very close. She calls her the "educated sister" because she went far in school and got her Ph.D. at Columbia University. She now teaches in high school. Patient is not close to her brother, 54, as he is like her father in temperament. Another brother, 52, lives in Alaska. They were very close to each other when they were young. Her father ran him away from home when he was expelled from high school, and he never returned home until their father's death. Her sister, 50, is "close to me in a way." They became closer in recent years when her sister found out patient's difficulty with writing bad checks. Patient's third son, adopted by this sister, is now 17 and is expected to graduate from high school this year. Her youngest brother, now 32, is a master sergeant in the Marines and "he is all right."

Her mother remarried in 1954. Patient and her stepfather did not get along well at all as he was jealous of her because mother paid too much attention to her.

Social Background and Adjustment: Patient does not like crowds. She gets along with older and younger people much better than with people of her age. In general, the patient is cheerful but this is more of a habit because she forces herself to be cheerful. She drinks some but not excessively. In 1952 she was quite depressed and took numerous phenobarbital pills in an effort to kill herself. She cried frequently when she was first married but now finds it difficult to cry, and felt little unhappiness in her confinement at the penitentiary. She tells of her present boy friend, age 27, who works at the Greyhound Bus Station and about whom she has mixed feelings, both sexual and maternal. He goes with other girls and often tells her of his adventures.

Medical History: Past health has been good except for puerperal sepsis after birth of first child. LMP—started shortly prior to admission here. Physical examination was within normal limits and no abnormalities were found on laboratory tests.

Mental Status: The patient is clothed in light sweater and slacks and wears slippers. Her toenails are painted. She sits in the chair in a rather ungraceful pose and moves and changes her positions frequently. She smokes many cigarettes and in general tries to give the impression that she is

carefree and cheerful, although she sheds a few tears from time to time.

She is in general talkative and tells minute details of her history. She is oriented as to time, place and person. Her memory is adequate and she performs 100-7 competently. She interprets "A rolling stone gathers no moss" as "If you keep thinking and moving you won't get stale."

She thinks perhaps the trouble with writing checks and buying things is that she wanted to feel secure, which she does feel after each episode of buying spree. Her future plan is not certain because she will go back to jail as soon as she gets out of the hospital. She knows that much depends on the opinion of the staff here.

DR. ORR: Thank you for this condensed history. Miss Stewart, did you talk with our patient's family?

MISS MARTHA STEWART: The patient was first referred for psychiatric evaluation at age 15 by Juvenile Court authorities following a "strip tease" dance performed for a group of male college students. Then she was sent to a convent for one year. She has written numerous "bad checks" over a period of 25 years, many of which were recovered by her family. She has been arrested, prosecuted and imprisoned on three occasions in the past for writing bad checks; 1951—Penal Farm, one year; 1955—Tennessee State Penitentiary, two years; 1958—Tennessee State Penitentiary, two years. Following her release from prison in July 1960, the patient began writing more "bad checks" which totaled about \$4,000. She was arrested in September 1960 and charged with impersonation and forgery. The patient generally purchased household items and occasionally some clothing with these checks and she gave away many of the items she purchased to her friends. In addition, the patient has a lengthy history of promiscuous sexual behavior. She was committed to Central State Hospital for observation and evaluation at the request of her attorney.

The patient was described as generally passive, but always demanding; a very convincing chronic liar, irresponsible and impulsive. The mother and sister are in hopes the patient will be permanently institutionalized for fear she may eventually do "worse things" if allowed any more freedom. Future plans will be determined by the decision of the Court.

The patient's family has never been able

to understand the patient and they tend to be critical of her behavior because they felt "humiliated or embarrassed." When the patient is not involved in anti-social behavior her family tends to be over-protective in an attempt to prevent any further unacceptable behavior. Both parents were very rigid disciplinarians and very religious people. The father was the dominant parent and apparently the most rejecting parent. He died of a heart attack in 1940 and the patient appeared unaffected by his death. The mother is 72 years old and in good health. The patient is very fond of her mother and is still very dependent upon her mother for many things. Their financial status was slightly above average and the home environment described as happy.

The patient was born in a small town but the family moved to a large city when she was a child. She was the fifth child of six siblings, three brothers and two sisters. Some conflicts are present between the patient and her older sister and the patient and her youngest brother. She completed the 10th grade in high school and a business course. She was considered an average student. The patient has been employed as a stenographer (later, after her first penitentiary sentence, she took an LPN course) and occasionally worked as practical nurse. She joined the Catholic Church in 1955; previously Baptist.

The patient was married in 1938 to a man several years her senior. The marriage was very unsatisfactory and ended in divorce in 1951 after the husband learned of the patient's affair with a newspaper photographer. Husband was an alcoholic, abused the patient and was a poor provider. They were supported primarily by the patient's mother. Patient had three children; a daughter age 21, presently in a mental hospital—reportedly a drug addict. Daughter ran away from home at age 14. A son was killed in an auto accident in 1957 at age 16. The patient appeared unaffected by his death. The third child, a son now age 16, was adopted by the patient's older sister. Patient always tended to neglect her children and following her divorce she turned them over to her mother and deserted them.

DR. ORR: Thank you, Miss Stewart. Mr. Robertson, you saw the patient for psycho-

logical examination. Could you please give us a summary of your findings?

MR. CHARLES ROBERTSON: The patient is of superior intellectual ability, earning a Full Scale IQ of 121 on the WAIS. Her test protocols present a very complex picture which does not fit easily into any one diagnostic category. One of the striking factors from a psycho-dynamic standpoint is an intense oral aggressive need which she has tried to repress and counteract but with only limited success. Much of her sociopathic-like behavior is seen as a means of defending against this need and at the same time indirectly and symbolically gratifying it. However, because of strong guilt feelings and anxieties which were produced, the defense was not adequate and there appears to be some change in progress in the form of a decompensation of ego controls. The test data would suggest that the patient probably is pre-psychotic at this time.

DR. ORR: Thank you, Mr. Robertson. Do we have a nursing report on this patient?

MRS. DOLORES KEEL: On admission the patient was very cooperative. She told us that she has forged checks only since the death of her son and doesn't know why she has done it.

She is quiet on the ward, reads books—mostly about crime. Much of the time she enters into ward activities easily, eats and sleeps. She prefers to associate with teenagers and particularly likes to tease one older patient about having syphilis, despite the fact that it upsets the old woman greatly.

DR. ORR: Thank you, Mrs. Keel.

Patient was then brought in and interviewed by Dr. Lawrence White.

DR. LAWRENCE WHITE: It is not too threatening in here for you, is it?

PATIENT: It's OK for you sitting over there, but I'm sitting over here.

DR. WHITE: How are things here for you, are they going all right?

PATIENT: I am treated fine.

DR. WHITE: Why are you here?

PATIENT: I asked to be brought—I forged checks. I was aware at the time it was wrong and wanted help, but I was arrested before I got here.

DR. WHITE: When did the episode begin?

PATIENT: Last August.

DR. WHITE: Were there many checks that you cashed?

PATIENT: (laughs) Oh yes, there were. I got TV sets, Hi-fi's, typewriters, actually two TV sets, three Hi-fi's and three sewing machines.

DR. WHITE: What had you planned to do with them?

PATIENT: Nothing.

DR. WHITE: Did you make the checks out for more money than the articles were priced?

PATIENT: Usually not.

DR. WHITE: Where are the things that you got now?

PATIENT: I returned them all.

DR. WHITE: Where did you live before you came here?

PATIENT: I lived in an apartment with my daughter.

DR. WHITE: Were you working at the time?

PATIENT: I have not been working since 1957 when I entered the penitentiary and was discharged in July of this year.

DR. WHITE: Had you been in the penitentiary before?

PATIENT: Yes, I had been there for the same thing, forging of checks. (Patient then went into work history and other forgeries, and told of police record, etc.)

DR. WHITE: Did you ever sell the things you got for money?

PATIENT: No.

DR. WHITE: When did you first write checks?

PATIENT: About 1939-40, just prior to my father's death, when I wrote a check on father.

DR. WHITE: Why did you write a check on your father?

PATIENT: I don't know.

DR. WHITE: Did you have any difficulty before that?

PATIENT: Yes, I did.

DR. WHITE: What kind of difficulty did you have?

PATIENT: I was in the juvenile court when I was 15 years old.

DR. WHITE: Why?

PATIENT: Because of sexual promiscuity.

DR. WHITE: Did your mother have you taken there or did the authorities take you?

PATIENT: My parents were not in town. I was called down to the principal's office at school who asked me where my parents were. My brother took me to Arkansas but my parents brought me back and later took me to the juvenile court for protection. When my parents left the maid lived at home and kept my little brother and me there.

DR. WHITE: Was your home life a pleasant one?

PATIENT: I could not say it was either one or the other.

DR. WHITE: Did you have any problems at home?

PATIENT: My father and mother did not argue, if that's what you mean.

DR. WHITE: How did you feel about your parents?

PATIENT: I love mother, but didn't realize it until I grew older. Father was indifferent but mother was kind and loving. I got many switchings from her which were all deserved. The family were Missionary Baptists and were very strict. They did not believe in laughing really, and there was never a party at home for my older sister. (Patient much more animated and talks in louder voice as she complains about restrictions of family.) I slipped out at night until one night when I got back I found mother sick in bed. I promised I wouldn't slip out any more. My little brother was the favored child, he was "Jesus Christ." My older brother and sister protected me from my family and I in turn didn't tell on them.

DR. WHITE: How was your relationship with your sister?

PATIENT: I'd rather not talk about it—. Let me tell you—the last time I was in the penitentiary I wrote letters to my sister's house so my stepfather wouldn't know I was in prison. I wrote these letters so that she could read them over the phone to mother. Now my sister has more understanding of my problems.

DR. WHITE: Did you know what you were doing when you wrote these checks?

PATIENT: Yes, I knew. I worried and tried not to buy these things.

DR. WHITE: Were you relieved when you were arrested?

PATIENT: I was very relieved. Sooner or later I knew that I would be arrested. I came here because I told them that if I didn't come I would go crazy.

DR. WHITE: Do you feel you have been sick?

PATIENT: Yes, and I still am.

DR. WHITE: What makes you think that you are sick?

PATIENT: I wouldn't do the things I do unless I was sick.

DR. WHITE: Tell me something about your marriage.

PATIENT: Marriage was good in some ways and bad in others. My husband drank.

DR. WHITE: You had troubles in your marriage? Whose fault were they?

PATIENT: My husband's and my own.

DR. WHITE: Do you have any children?

PATIENT: Yes, there were three children. One died. I have a daughter who is 21 and a son who is almost 17.

DR. WHITE: Do you have any problems with your children?

PATIENT: We had good times together, we were four children together.

DR. WHITE: Do you have any plans for the future?

PATIENT: I want to stay here until you feel I can leave. I know I have to go to jail unless you can work out something for me here. Then I will go to the outpatient department and possibly work in a doctor's office and make a future for myself. If I can't be helped I would like to just live in the penitentiary. (Patient ended her interview telling with a great deal of animation how she smuggled a gun into the penitentiary.)

Patient leaves.

Discussion

DR. WHITE: Patient is quite tense and I believe anxious. At the beginning of the interview she was quiet and subdued, but as it progressed she became animated, circumstantial with a hypomanic quality to her behavior. Certainly, I see nothing here today that would make me feel she has schizophrenia. On the other hand, there are many things about her which are not characteristic of the sociopath.

DR. WILLARD SEGERSON: I was quite impressed by the compulsive aspects of her illness; not only in the repetition of her pattern of forging checks but in the things that she acquired.

DR. LOUIS SAMPSON: A feature that seems important is that she is apparently starved for affection. This is shown not only by her sexual promiscuity but also by the obtaining of worldly goods as being evidence of being accepted by the world.

DR. ORR: There is no one answer here, as there never is. A significant aspect of this story is that her family apparently changed during the time she was maturing. Her older sister's world was apparently one of consistent fundamentalist discipline. She is now a conforming member of society. Patient's was one of inconsistency—she was allowed parties in her home as she grew older, she could go out, and I feel that just as her family had no longer a certain standard which they expected of themselves, she had no true image of what was expected of her. It has been shown by many workers in sociology that social problems are more prone to occur in periods or areas of social change and transition. Although we are unable to take her story as gospel there is no reason to believe that the sexual exhibition, in which she was involved when patient was 15, did not occur while family was out of town and she and her younger brother were being cared for by a maid, which seems out of character for her rigid family. When her sexual misconduct transpired her family became hopelessly confused and she was rejected by them and placed in a corrective institution where, since she had previously not found an adequate self-image, she saw herself as an outcast and beyond the law. This role she has continued to play. Added onto this, or bet-

ter, acting out within this frame of reference, is a disorganized, poorly polarized compulsive neurotic woman. Unable to give or receive satisfying affection in relation to others, she turns to things as symbols of potential love; Hi-fi's, radios, TV's, which she must acquire, but for which she has little apparent use. It is perfectly possible, though not essential to our thesis, that the uttering of these bad checks for the articles was in a way the swapping of bad love for good.

DR. FRANK LUTON: Her sense of guilt seems an outstanding feature. This despite the fact that she has little conscious regret. Her needs for punishment are apparent and she knows that if she is released she will surely go back and "sin" again and be committed to the penitentiary. No doubt there is deep-seated anxiety and much resentment and hatred toward her family. Her misconduct not only punishes herself but her family also. I feel one thing more needs to be commented on; she has the appeal which is so characteristic of sociopaths. Without this appeal she could not have perpetrated her forgeries.

DR. WHITE: We have the practical point to settle. She was sent here by the court for us to advise it if she is competent to stand trial. If we do not make a diagnosis of psychosis she will be tried and most likely will be convicted. In the penitentiary she will receive no treatment which she needs. Yet, she is not psychotic.

DR. ORR: Would it be possible to request that she be permitted to stay at Central State Hospital for treatment and allow the charges to be held in abeyance?

DR. WHITE: It is possible to request this, though I am not at all sure it is proper for us to assume the right of legal judgment in this case.

CLINICOPATHOLOGIC CONFERENCE

Baptist Memorial Hospital

Hemangioma of Jejunum with Intussusception*

Mrs. M. G., a 34 year old lady was admitted to Baptist Memorial Hospital on Sept. 28, 1960, with a history of upper abdominal pain, starting about six days prior to admission. Initially, the pain was described as sharp, limited to the epigastrium and not associated with nausea or vomiting. Three days after the onset of pain a gastrointestinal x-ray study in a private clinic was reported as essentially negative. Two days before admission she developed nausea and vomiting which was described as "voluminous." She also developed some diarrhea at the same time. There was no blood in the vomitus or stools.

A review of the systems revealed no significant abnormalities and there were no previous similar episodes. There had been no previous operations.

On admission the temperature was 98°, pulse 110, respiration 28, blood pressure 116/86. The eyes were sunken, the heart rate was rapid, and there was an apical systolic murmur. The abdomen was slightly distended with questionable fluid in the flanks. No masses or enlarged organs were palpated. There was no point of tenderness and no muscle rigidity. The patient was menstruating at the time of admission and pelvic examination was deferred.

Laboratory findings shortly after admission included a hematocrit of 48%, hemoglobin 16 grams, white blood count 16,400, with 75% segs, 6% bands, 15% lymphs, 3% monos, 1% basophils. Serum sodium 131 mEq/L, potassium 3.2 mEq/L, chlorides 85 mEq/L, CO₂ combining power 33 mEq/L. Serum amylase 41 mgs.%. BUN 44 mgs.%, SGOT 32, serum bilirubin 0.7 mgs.% with direct 0.2 and indirect 0.5. Febrile agglutinations were all negative, and a culture of the stool for enteric pathogens was negative. The catheterized urine specimen on the day after admission was reported as amber, hazy and acid with specific gravity of 1.020, protein 1 plus, sugar 1 plus, acetone negative. Microscopic negative except for occasional white blood cells. An x-ray of the abdomen was essentially negative, no distended bowel being demonstrated.

A nasogastric tube was inserted and Wangenstein suction started. Intravenous fluid therapy was instituted to correct the electrolyte deficits. The second day after admission the Levin tube was removed and liquid diet was started. This was tolerated for only two days when the patient started vomiting again.

The clinical course for the next two weeks was characterized by several repeated attempts to take oral fluid and medication, but each time the vomit-

ing recurred and Wangenstein suction was re-instituted. During this period there was a low grade temperature elevation, but the temperature was never recorded as over 100.2°. Medications given during this period included Chloromycetin and Probanthine.

Repeated laboratory examinations revealed a gradual improvement in the status of the electrolytes and the BUN dropped to 9 mgs.%, but there was a persistent leukocytosis of 11 to 13,000 with 70 to 80% segs and 3 to 4% bands and with toxic granulation being reported in the cytoplasm of the neutrophils.

On October 12, an x-ray examination of the gastrointestinal tract revealed no pathology in the esophagus or stomach. In two hours there was a trace of barium in the stomach, with the remainder of the barium scattered through the small bowel and right colon. The bowel pattern was rather coarse, suggesting excess mucus and irritation of small bowel and colon.

On October 14, the patient experienced an increase in the cramping pain in the epigastrium. X-ray of the abdomen at this time indicated 3 small bowel loops filled with gas in the midabdomen suggesting obstruction. Wangenstein suction was started again and on October 15, gross blood was detected in the aspirated material. The hematocrit dropped to 30 and blood transfusions were started through a catheter which was placed in the long saphenous vein at the ankle. On October 16, the hematocrit was 40%, sodium 144 mEq/L, potas. 6.1 mEq/L, chlor. 105 mEq/L, CO₂ 27 mEq/L. No further bleeding was apparent in the Wangenstein suction. On Oct. 18, the patient was taken to surgery and an exploratory laparotomy was performed.

DR. FENWICK CHAPPELL: This case is a little unusual—it is a surgical case and the patient survived. Dr. Bill Tyson will be the discussant.

DR. WILLIAM T. TYSON: Thank you, Dr. Chappell. This is a case of recurrent upper abdominal pain due to intestinal obstruction. This 34 year old female was admitted with a history of upper abdominal pain of six days duration. Initially the pain was described as sharp, limited to the epigastrium and not associated with nausea or vomiting. Three days after the onset of the pain a gastrointestinal study was reported as negative. Two days before admission she developed nausea and vomiting which was described as voluminous. There was no blood in the vomitus or stools. When a patient comes in with upper abdominal pain, we should consider such things as a peptic ulcer. I do not think this patient had a peptic ulcer as we have no indication that the pain was relieved at all by the ingestion

*Department of Pathology and Surgery, Baptist Memorial Hospital, Memphis, Tenn.

of food or soda. The gastrointestinal x-rays were negative, which does not rule out peptic ulcer but is against it. Cholecystitis must be kept in mind. A gallbladder study was not made so I do not think cholecystitis was seriously considered. Pancreatitis has to be considered when a patient has abdominal pain, especially in the upper or mid-abdomen. This patient's serum amylase was not elevated. That does not rule out pancreatitis, but usually in the early stages of pancreatitis the amylase will be elevated for a short while then will often return to normal. Another possibility is hiatus hernia. There was no evidence on the x-ray studies that this patient had a hiatus hernia. Myocardial infarction will sometimes give upper abdominal pain. It was stated that three or four days after the onset of the pain that the patient began to have nausea and vomiting and the vomiting was described as voluminous. This would make one think of intestinal obstruction. Probably the obstruction was not complete, at least not at the outset, or else the vomiting would have occurred earlier than it did. I think it was probably partial, or intermittent, or both; I do not think she had a complete obstruction, at least not at the beginning of her illness because she was hospitalized for about three weeks before she was operated upon.

A review of the systems revealed no significant abnormalities and there were no previous similar episodes.

On admission the temperature was 98 degrees. This would certainly be consistent with intestinal obstruction rather than with an infectious process. Pulse was 110, respiration 28, blood pressure was normal. Eyes were sunken, heart rate was rapid. There was an apical systolic murmur. The abdomen was slightly distended with questionable fluid in the flanks. This would be compatible with intestinal obstruction or an ileus. Often it is hard to tell clinically whether one is dealing with a mechanical obstruction or with a paralytic ileus. Sometimes x-rays are misleading in this respect. No masses or enlarged organs were palpated. There was no point tenderness and no muscle rigidity. This would be against acute inflammatory process such as appendicitis or diverticulitis. I think tuberculosis enterocolitis with peritonitis is something

that will have to be considered in this case.

Laboratory findings shortly after admission included an hematocrit of 48%. That certainly is elevated and could be due to dehydration. Perhaps she actually had a polycythemia. The hemoglobin was 16 grams, white count 16,400, 75% segs, 6% bands, 15% lymphs, 3% monos, 1% basophils. Serum sodium 131 mEq/L, potassium 3.2 mEq/L, chlorides 85 mEq/L, CO_2 combining power 33 mEq/L, serum amylase 41 mg.%, BUN 44 mg.%, SGOT 32 units, bilirubin 0.7 mgs. Febrile agglutinations were all negative and a culture of stool for enteric pathogens was negative. Catheterized urine specimen the day after admission was reported as follows: Specific gravity 1,020, protein 1 plus, sugar 1 plus, acetone negative and microscopic negative. One would think if she had much dehydration as a result of her vomiting she would have a positive acetone in her urine. Initial x-rays of the abdomen were essentially negative, no distended bowel being demonstrated. A Levin tube was inserted and Wangensteen suction instituted, presumably because she was vomiting so much and the abdomen was distended and she was having pain. I.V. fluids were given to correct fluid and electrolyte deficits. On the second day the tube was removed and a liquid diet given. She tolerated this for two days and began vomiting again. This is consistent with intermittent or partial intestine obstruction. I think that if this patient had had a complete intestinal obstruction she would have been sicker by this time.

The clinical course for the next two weeks was characterized by several repeated attempts to take oral fluids and medications, but each time the vomiting recurred and Wangensteen suction was reinstituted. During this period there was a low grade temperature elevation. That would be compatible with a low grade enterocolitis and peritonitis. With mechanical obstruction sometimes a low grade fever is present. She was given Chloromycetin and Probantine. Perhaps the Probantine was given because of her diarrhea. The Chloromycetin may have been given just because she had fever, or perhaps they thought she had some specific intestinal infection for which Chloromycetin was indicated. Repeated laboratory exami-

nations revealed a gradual improvement in the status of the electrolytes. The BUN dropped to 9 mgs.%. There was a persistent leukocytosis of 11 to 13,000. Toxic granules were reported in the cytoplasm of the neutrophils. On October 12, x-ray examination revealed no pathology in the esophagus or stomach. In two hours there was a trace of barium in the stomach with the remainder of the barium scattered throughout the small bowel and right colon. The bowel pattern was rather coarse suggesting excess mucus and irritation of the small bowel and colon. I do not believe this patient was sick enough to have a Staph enterocolitis. I think regional enteritis had to be considered very strongly in this case. Although usually it occurs in the terminal ileum, it can occur in the jejunum and even in the colon, and there are many things about this case that would make me think this patient had regional enteritis or Crohn's disease, perhaps limited to the jejunum. On October 14, the patient experienced cramping pain in the epigastrium. X-ray of the abdomen at this time indicated three small bowel loops filled with gas in the midabdomen suggesting obstruction. I shall ask Dr. J. L. Booth to show these films.

DR. J. L. BOOTH: The first film was made on September 28, 1960, the day of admission. We felt this was not indicative of intestinal obstruction. We see an abdomen that is almost devoid of air. A little bit of gas is noted in the transverse colon, some in the stomach, and we see no small bowel gas. We see no density that suggests fluid-filled loops in the abdomen. The next examination was about two weeks later. A flat plate of the abdomen preceded a GI series, and here we see some gas-filled loops more than on the previous examination but nothing that would suggest a definite intestinal obstruction. It was on the two hour film that we first noticed an abnormal small bowel which was moderately filled with air. These loops are in the region of the jejunum. Below the dilated loops there is normal ileum. There is not complete obstruction as air passes into the colon. We have the appearance of partial obstruction with loops of dilated small bowel with no definite areas of constriction as is seen in Crohn's disease. One area appears slightly constricted, but

since we have no others we are not certain that that is a constant finding. The next film on October 14, two days later, shows three loops of markedly distending small bowel indicating complete obstruction. By this time most of the barium had gone out of the colon and small bowel.

DR. TYSON: After this last film was made Wangenstein suction was started again and on October 15, gross blood was detected in the aspirated material. It does not state in the protocol whether there was any melena. The hematocrit dropped to 30. She was given blood transfusions and the hematocrit came up to 40. The electrolytes were checked and they were essentially normal. There was no further bleeding, and an operation was performed.

There are a few other things I would like to mention and then open this for discussion. It was stated that the pelvic examination was not done. Endometriosis can occur almost anywhere. It can occur in the small bowel and can produce obstruction and bleeding. Several years ago Dr. Harwell Wilson and I reported three cases of endometriosis of the sigmoid colon. These had obstruction simulating carcinoma and rectal bleeding. The bleeding occurred characteristically at time of the menstrual period. The bleeding in this case is a little difficult to explain. The blood was seen in the Wangenstein and none was noted rectally, and apparently there was considerable bleeding. I do not know whether the bleeding occurred from the lesion or possibly from the Levin tube being inserted repeatedly and the trauma from the tube may have resulted in bleeding from the esophagus or stomach. Also the blood was not noted initially and this patient had vomited a good many times, so it is possible she had peptic esophagitis and gastritis from prolonged and repeated vomiting that resulted in hemorrhage. It may be that the bleeding had nothing at all to do with the lesion in question, I am not sure about that. Another possibility is polycythemia. We have mentioned that the hematocrit was 48 on admission; perhaps this woman did have polycythemia with multiple thrombosis of vessels. Perhaps she had initially thrombosis of the splenic or omental vessels. Perhaps later on when this last x-ray was made she had

thrombosis of one of the mesenteric vessels necessitating operation. A small bowel tumor such as an adenomatous polyp, leiomyoma, leiomyosarcoma, lymphoma, carcinoid, etc. has to be strongly considered. I think a small bowel tumor could cause the intermittent obstruction or the partial obstruction that this patient had. Intussusception is usually a disease of childhood but can occur in adults especially if there is a polyp or tumor which acts as the starting point for an intussusception. Volvulus is another possibility. Volvulus is more frequent in the large bowel but does occur sometimes in the small bowel. This patient could have had a volvulus that was occurring intermittently. An internal hernia is another possibility. Adhesions are the most common cause of obstruction. This patient had never been operated upon but she still might have had adhesions. I think we ought to mention in passing, a foreign body such as a fish bone or chicken bone which might perforate the intestine.

In summary, I believe this patient probably had a regional enteritis, probably in the jejunum rather than in the ileum. Second and third possibilities are a small bowel tumor and polycythemia with thrombosis.

DR. A. B. WEIR: There are features that suggest a suppurative infection. A persistently high white count with a little shift to the left, toxic granulations in the neutrophils and the patient's erythron dropped more than one-third in a period of two weeks. I gathered that the gross bleeding was not really massive bleeding and did not account for the rapid drop in hematocrit.

DR. W. T. TYSON: It was my understanding that the blood loss was a rather sudden thing necessitating a cutdown and a rapid transfusion.

DR. DAVID SCHEINBERG: Was there an x-ray of the gallbladder?

DR. F. CHAPPELL: Dr. McCown tells us that the chest, gallbladder and gastrointestinal x-rays were made prior to admission in the hospital and they were normal.

DR. A. H. MEYER, JR.: I think this boils down to a discussion of the differential diagnosis of small bowel obstruction associated with bleeding. I have seen a few cases of hemangiomas of the wall of the small bowel which bleed and which may also act

as leading points in intussusceptions producing intermittent and recurring bouts of small bowel obstruction.

DR. CLIFFORD KERBY: Is there a contraindication to doing the upper GI series in a patient who is obstructed?

DR. J. L. BOOTH: We first take an x-ray of the abdomen to determine if intestinal obstruction is present. In this case we were partially wrong as there was partial obstruction. Sometimes the bowel will be filled with fluid and the gas-filled loops will not be seen. Gastrografin can be used as it does not inspissate as barium does and will not convert a partial obstruction to a complete obstruction. In this case there was not complete obstruction as subsequent films show the barium in the colon.

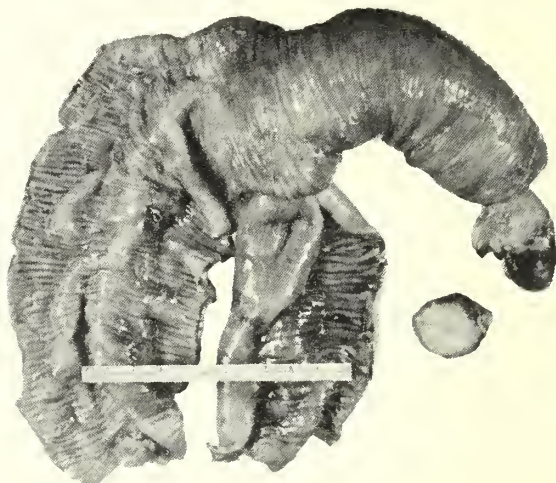


FIG. 1. Intussusception of jejunum due to pedunculated sclerosing hemangioma.

DR. C. E. STRICKLAND: The surgical specimen was a 30 cm. segment of jejunum which contained a large intussuscepted segment of bowel measuring 10 cm. in length. The bowel wall was edematous and in areas had a dusky, slightly cyanotic appearance. At the distal end of the intussusceptum there was a pedunculated tumor mass measuring 6 x 3 x 3 cm. The tumor was firm and had an ulcerated hemorrhagic surface. The cut surface of the tumor was grayish-white, glistening and blended with the submucosa of the bowel to which it was attached. Microscopic sections revealed a predominantly vascular tumor with a prominent fibroblastic component and focal areas of eosinophilic and mononuclear cell infiltration. There were rare mitotic figures in the specimen,

but the tumor was histologically benign and fibrous tissue stains revealed a moderate amount of collagen in the tumor and reticulum stains confirmed the prominent vascularity of the tumor.

Intussusception is predominantly a disorder of infants and children where it is usually unassociated with other pathology of the bowel. In adults, however, it is a different disorder, as it is usually associated with some primary pathology of the bowel or adjacent supporting structures. Tumors are the most common initiating factor for intussusception in the adult with benign tumor of the bowel causing thirty-two per cent of the cases, and malignant tumors 18.5 per cent. Congenital disorders of the bowel are the next most common cause of intussusception with Meckel's diverticulum being responsible for 6.5 per cent of adult cases of intussusception. The most common benign tumors causing intussusception are polypoid mucosal overgrowths; papillomas or adenomas and carcinomas are the most common malignant tumor producing this disorder.

Tumors of the small bowel are uncommon, for although the small intestine compresses 75 per cent of the length of the entire gastrointestinal tract, it is the site of origin of less than 5 per cent of the neoplasms. The usual hemangioma of the bowel is a flat or sessile structure but this hemangioma was polypoid due to the large amounts of fibrous tissue associated with this particular tumor. The prominent vascularity of the tumor in this case with its areas of superficial ulceration is the explanation for the bleeding and drop in the hematocrit the patient experienced.

In summary, this is a case of upper abdominal pain and small bowel obstruction due to a jejunojejunal intussusception caused by a pedunculated, sclerosing hemangioma arising from the submucosa of the jejunum.

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November, 1960

Dear Doctor:

As President of the American Medical Association I would like to bring to your attention the enclosed pamphlet stating the need for support of our nation's medical schools. It also explains how the American Medical Education Foundation endeavors to help meet those needs. I hope you'll join me in sending a contribution to the American Medical Education Foundation today—either as an undesignated gift which benefits all of the 85 medical schools or as a gift designated to your own alma mater.

Sincerely,
E. Vincent Askey, M.D.
President
American Medical Association

WHEN SCHOOLS RECEIVE AMEF FUNDS . . .

- 34% use their grants exclusively to strengthen their teaching programs.
- 41% purchase equipment with some of the money.
- 12% apply some to student aid.
- 16% use a portion for research.
- 11% use some of the funds for building, remodeling, or matching outside grants for these purposes.

President's Page



RALPH O. RYCHENER,
M.D.

The medical profession continues to take the rap from many magazine writers. Harper's magazine, October 1960, contained an article entitled "The Politics of Medicine," which was not only vicious, but unrealistic. The author called the American Medical Association an ogre preventing the logical development of medical care into prepayment plans and group practice to administer these plans. This article states the position that a prepayment plan can be set up in one part of the country which should suit the needs of the entire population of the United States. This is obviously impossible as different systems have to be instituted to blend with the type of practice in different areas of the country. In some states, a service plan, such as our Tennessee Plan, is the most feasible, while in others an indemnity or some other plan is more workable. Tennessee physicians should read this article in Harper's; that is if one of your patient's hasn't already thrust it into your hands.

The Executive Committee of the Board of Trustees has had one meeting with representatives of the Governor, to work out administrative procedures in the programs covered under the law recently passed by Congress for medical care to the aged. This law is somewhat complex, since it actually embodies two separate programs. The old age assistance program (OAA) is merely an extension of the present welfare program now in effect. The law extends additional funds for use by the Welfare Department in caring for those persons already on welfare rolls.

The new phase of the program for medical assistance to the aged (MAA) embodies a new group of persons called the "near needy aged."

Statistics gathered from the State Welfare Department reveal that 291,684 persons 65 years of age and over live in Tennessee. 159,000 of this number have incomes of less than \$1,000 per year. In order for participation in our state, it will be necessary for the Tennessee General Assembly to enact the proper legislation in order for this program to be made effective locally. The great proportion of funds necessary to run these programs are available from the federal government. Matching formulas are established wherein the states are required to finance part of the cost of the program.

Working out of the details of administration presents a very complex problem. Determining such matters as the definition of indigent persons in hospitals and other cases will be required. Some agreement must be reached as to income limits of persons that would be eligible under the "near needy" program of medical assistance to the aged. Some definition of home and personal property or liquid assets as a criteria for eligibility is going to have to be determined.

Your state association's representatives have been requested by the Governor's Committee to submit general suggestions for administration of the proposed program. It has been requested that "purely suggestions" by TSMA be submitted and not firm demands. In Tennessee, the new medical assistance to the near needy aged calls for the matching formula of 76% federal funds and 24% from the State.

Many problems confront us in developing the criteria and administration before a working plan can be effected, and all must remember that Utopia has not yet been reached.

Ralph O. Rychener, M.D.

President

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DECEMBER, 1960

EDITORIAL

That Thyroid Nodule

It is understandable that a surgeon and an internist, by virtue of their respective trainings, might hold different attitudes when viewing the same problem. This seems particularly true as we look at the situation presented by the nodule in the thyroid gland.

A recent report by surgeons in Detroit has been read with interest.¹ Nodules judged clinically to be benign in character were removed from 14 patients. Microscopically the benign character of the nodule was confirmed. However, in each patient, at the time of operation, additional nodules were found which proved on microscopic examination to be malignant. All of these patients were women, and 12 of the 14 were in the 40 to 60 age group. In 8 of the 14 patients multiple benign nodules were present, usually bilaterally. In 4 patients more than one focus of carcinoma was found. In

2 of these patients the carcinoma was present in both lobes.

These surgeons emphasize that it is virtually impossible to predict, preoperatively, the presence or absence of carcinoma. They believe that malignancies are present in the thyroid more frequently than suspected clinically. Also, they stress the well known fact that a tissue diagnosis of cancer of the thyroid may be difficult to make, and fixed tissue sections should be employed. This, of course, may make subsequent operation necessary. The extent of the subsequent surgery is conditioned, in part, by the amount of the gland left at the original operation. They recommend that at the first operation, even though carcinoma is not suspected, a total unilateral lobectomy of the side containing the observed nodule, and removal of the isthmus should be carried out. If the opposite lobe contains no nodules it is left alone. If nodules are felt, a subtotal lobectomy is done. If carcinoma is found bilaterally, total lobectomy is carried out, and an extensive resection of the cervical lymph nodes is performed.

Block and his co-workers² noted in reviewing cases of carcinoma of the thyroid, that if lymph nodes were not felt at the time of operation and neck dissection not carried out, 10% of the patients later developed clinical evidence of cervical node metastases; 30% were later found to have microscopic changes in cervical nodes, and 1 to 2% later died with metastatic cancer of the thyroid. Therefore, radical neck dissection is carried out, if there is obvious cervical node metastases or if the gland itself suggests local tissue invasion. Modified neck dissection is done, if neck nodes are not felt originally, or carried out at the time of secondary operation for total lobectomy following the original exploratory operation, which demonstrated the cancerous character of the nodule. No neck dissection is suggested if the malignant nodule is centrally located and in the isthmus, if only minute microscopic foci are found postoperatively, if there is any question of the microscopic diagnosis, or finally, if widespread distant metastases already exist.

Now let us consider the internist's thinking in regard to the solitary thyroid nodule. Astwood and his associates³ in Boston re-

ported their observations on 230 patients with diffuse and nodular nontoxic goiter, treated with desiccated thyroid orally. In about two-thirds of the patients the enlargement was either reduced or disappeared. This group included 37 instances of an isolated nodule. Under treatment, 27% of these disappeared completely, 27% showed a moderate response and 46% were not changed.

Some help may be obtained in an attempt to predict which isolated nodule may respond to thyroid substance by the use of radio-iodine. If the nodule has an isolated increased uptake it is not likely that desiccated thyroid will be effective and the nodule should be treated with radio-iodine or excised. Confusion can follow since there are a few reported instances where nodules which later proved to be malignant in character, actually responded markedly to thyroid substance.

As one looks at this problem it does seem that conservative judgment would suggest that all nodular goiters, be they single or multiple, lie in the province of the surgeon. An attempt to treat such a gland with desiccated thyroid, is a procedure subject to a possible unfortunate future predicament. If the internist is aware of the pit-falls and limits his observation to a one or two month period of time, he is acting with reason. By the same token, the operating surgeon should be aware of the indications and the necessary technical problems, for a limited or extensive neck procedure. Finally, the pathologist occupies a peculiarly difficult and extremely important position in the interpretation of the tissue submitted. It is an area of microscopic evaluation requiring great care and a background of let-us-say, ample experience.

A. W.

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DOCTORS AND THE KERR-MILLS BILL

The presidential election has passed into history, but the moves of the incoming regime are still unknown. Time will reveal how many of the planks in the Party Platform were for the mere purpose of attracting votes and how many will be seriously advanced for writing into our laws. The margin in the popular vote is so razor-thin that only an egoist would interpret the victory as a mandate to upset our way of life both socially and economically. Nevertheless, there are strong implications that attempts will be made to advance social legislation. If such be the case, a coalition of Republicans and conservative Southern Democrats can provide an adequate check-rein on too rapid an advance in this area.

With the recognition of this potential hurdle, it seems very likely that the new administration and its spokesmen will try to wrest the control of certain key Congressional committees from the conservative representatives of the people by "packing" them with additional members to throw them off-balance or by parliamentary means to diminish their potency. Here is where the first battle will probably be joined.

Congressmen and Senators have complained in the past they never hear from doctors regarding their thoughts. Now is the time for the doctor-citizen to play his part. Between the time this editorial is read and the end of December, doctors can contribute much to the good of the Country if they will discuss with their Congressmen or Senators certain issues. Ideally, the legislator's personal physician should be the key man, the one whom he trusts most. The approach in the discussion should be educational. Even though the personal physician believes himself knowledgeable in the political aspects and implications and may think he can do the job alone, others of his confreres must play a role too. Every doctor in the community should accept as his responsibility a contact with his Congressman before he leaves for Washington, preferably by a personal call to his office.

Medical men should stress to the legislator the historical concern the medical profession has had since the days of Hippocrates in the provision of medical care to the

poor irrespective of the ability to pay. It is this which led Robert Louis Stevenson to say, "There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization." Doctors, with few exceptions, contribute, and have contributed for ages, their time and energies to care of the needy.

It must be emphasized to the legislator, that medical care for the needy has always been provided. Until the past couple of decades this has been a local matter, and has represented a "light hidden under a bushel basket." And it is the public's unappreciation of this circumstance which has thrown the glare of unfortunate interpretation on the profession's stand on federal schemes of aid. The legislator must know this background of the doctors' concern for adequate care for the indigent or medically indigent, and the lead the medical profession of Tennessee has taken in this regard, —in the promulgation of the Act for Hospitalization of the Indigent and the Tennessee Plan.

Though we may strongly favor the provision of such care under local administration to insure the proper, legitimate and economical use of the citizen's tax dollar, we are faced instead, whether we like it or not, with a federal scheme—the Kerr-Mills Bill. We can in principle support this law which is to provide for the care of the needy, irrespective of reservations we may have regarding the ultimate costs and outcome of a federal program. We must impress upon our representative that this statute provides for the most needy which would be lacking under a bill related to the insurance features of the Social Security Act. We must point to the callous disregard of labor and other pressure groups which selfishly favor a Forand-type of legislation which provides benefits only to those covered by Social Security. Such legislation gives no consideration to the many needy persons not so covered nor to the American basic philosophy of independence and individual responsibility. (The legislator probably knows better than do we the implications of financing either type of scheme.)

These then are the items which need to be stressed in urging a fair trial of the Kerr-Mills legislation and awaiting a better understanding of the needs of the aging which may be clarified by the White House Conference. The growth of health insurance must not be overlooked.

To summarize, see your friend Congressman or Senator. Each of our Tennessee Congressmen has expressed himself as being opposed to Forand-type of legislation, but the pressure will be very great on our Democratic Congressmen in the coming session of Congress. Be sure to thank him for his stand against the Forand Bill, if such was his action. Emphasize the past history of medical care of the indigent and needy, the growth of health insurance and other means of providing hospitalization. Indicate the acceptability of the Kerr-Mills type of legislation which takes into account *need*. (At the called meeting of the House of Delegates, December 11, it is probable that the medical profession will again reaffirm its stand on the care of the needy without fee. This as applied to the Kerr-Mills Bill.*) Urge that he guard the prerogatives of the House Rules Committee which is the check-rein against hasty and ill-conceived legislation of whatever type. There are only a couple of weeks now before the fight may begin.

R. H. K.

*Note. This was done.

DEATHS

Dr. Robert Linah Cobb, Bolivar, died November 12th at the Giles Clinic in Gallatin. Dr. Cobb was director of the Hardeman County Health Unit.

Dr. R. C. Gaw, 78, Gainesboro, died on October 18th at his home.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Consolidated Medical Assembly of West Tennessee

The regular monthly meeting was held on November 1st at the New Southern Hotel in Jackson. The scientific program consisted of a paper given by Dr. Harold K. Alsobrook, Jackson dermatologist. Dr. Alsobrook discussed experiences with griseofulvin and

fungus diseases, illustrating the talk with slide films. Approximately 42 doctors from the area were present for the meeting.

Nashville Academy of Medicine and Davidson County Medical Society

The society's regular meeting was held on November 15th at Vanderbilt University Hospital, where the meeting was preceded by a dinner. In the business portion of the meeting, the society nominated officers for 1961 and considered amendments to the By-laws. The scientific program consisted of a film on control of radiation exposure in diagnostic radiology. The film was entitled, "Radiation: Physician and Patient."

Knoxville Academy of Medicine

The Knoxville Academy of Medicine met on the evening of November 8th in the Academy building. The scientific program was presented by Dr. Dwight Ensign of the Henry Ford Hospital, Detroit, Michigan.

In the business portion of the meeting, the Academy elected the following officers: Dr. Dewey Peters, president-elect; Dr. H. O. Bourkard, vice-president; and Dr. Ray J. Leffler, secretary-treasurer. Dr. Jack Chesney, current president-elect, will assume the presidency on January 1, 1961.

Greene County Medical Society

The Society met on the evening of November 1 at the Elks Club in Greeneville. In the business session, the society voted to table a request of the *Greeneville Sun*. The society voted not to support a series of articles to run in the *Sun* which would have as its purpose the improvement in collections for doctors.

The society reported that the Golden T certificate and Tie clasp had been presented by Dr. Bottomley to Dr. Hawkins for his fifty years of service in Greene County. A report also was given the society members on the special meeting of the House of Delegates of TSMA.

The scientific program was presented by Dr. John Wilson of the Greene Valley Hospital and School. Dr. Wilson gave a talk on the plans for the development and operation of that institution.

Roane County Medical Society

The society held its regular monthly meeting on November 29th in the cafeteria of the Oak Ridge Hospital. The meeting was preceded by a dinner. Guest essayist was Dr. Vincent Young, Proctologist of Knoxville. His subject was "Proctologic Considerations."

Election of officers was held by the society following the scientific program.

Memphis-Shelby County Medical Society

The society met in regular session in the Institute of Pathology Auditorium on Tuesday, September 6th. The scientific program consisted of a Symposium on New Born with Dr. F. Tom Mitchell moderating. Speakers and their subjects were: Dr. Ray W. Mackey—"Neurology"; Dr. Artura Aballi—"Blood Coagulation"; Dr. Earle L. Wrenn, Jr.—"Surgery"; Dr. Sheldon B. Korones—"Infection."

Chattanooga-Hamilton County Medical Society

The society's regular monthly meeting was conducted on November 1st in the Interstate Building Auditorium. The scientific program consisted of papers entitled "Common Tumors of the Skin" by Dr. Clarence Shaw; and "Meckel's Diverticulosis and Intestinal Obstruction" by Dr. Gene H. Kistler. An interesting discussion was presented by Dr. Edward Newell, Jr. along with a case report.

Coffee County Medical Society

The society met on the evening of October 11th in the Coffee County Hospital at Manchester. The scientific program consisted of a paper entitled "Athletic Injuries" presented by Dr. Brandt Lipscomb of Nashville. Dr. Lipscomb appeared as a guest of Dr. Bruce E. Galbraith of Tullahoma.

Benton-Humphreys County Medical Society

Members of the Benton-Humphreys County Medical Society met recently at Wallace's Restaurant in Waverly. The scientific program was presented by Dr. Lowry Kirby of Nashville, a pediatrician, whose subject was "Pediatric Emergencies."

NATIONAL NEWS

The Month in Washington

(From the Washington Office of AMA)

Election of Sen. John F. Kennedy as President made it probable that the issue of providing health care for the aged under Social Security will be raised again in Congress next year.

Kennedy will go into the White House pledged "to the immediate enactment of a program of medical care for the aged through Social Security." His intentions present a serious challenge to the nation's physicians who have vigorously opposed use of the Social Security system to provide health care for the aged.

Kennedy's program would provide what he described as "a life policy of paid-up medical insurance" for older persons. "It would provide them hospital benefits, nursing home benefits and x-rays and laboratory tests on an out-patient basis," he said in his campaign for the Presidency.

He said the Kerr-Mills legislation enacted into law last summer is inadequate. The medical profession supports this federal-state program to provide health care for needy and near-needy aged persons. In approving the Kerr-Mills program, Congress rejected the Social Security approach espoused by Kennedy and union labor leaders.

Kennedy's medical program also included: federal grants for construction, expansion and modernization of medical, dental and public health schools; federal loans and scholarships for medical students; federal grants for renovating older hospitals; increased federal financial support for medical research, including basic research, and expansion of federal programs for rehabilitation of handicapped or disabled persons.

* * *

Food and Drug Administration employees have been cleared of conflict-of-interest charges brought up in the Senate Antitrust and Monopoly Sub-committee's investigation of the drug industry.

A three-member investigating group appointed by Arthur S. Flemming, Secretary

of Health, Education and Welfare, examined the financial records of 900 FDA employees. The special investigators then reported: "On the basis of all the evidence before us, it is our judgment that there are no present employees of the FDA whose sources of personal income are incompatible with their government employment." The investigators continued to analyze "a mass of fact and opinion" in connection with charges that there has been too close a relationship between some FDA employees and drug companies which they check for conformance to government regulations.

The investigators anticipated that their final report would show the possibility of organization or procedural improvements in the FDA. The charges were triggered by disclosure at the Subcommittee investigation that Dr. Henry A. Welch, Director of the FDA's Antibiotics Division, had received \$287,000 over eight years as a writer and editor for antibiotics publications. After the disclosure, Flemming ousted Welch from the government post.

* * *

The Federal Children's Bureau reported that the infant death rate in the United States has declined since 1958 but still shows the effect of a 1957-'58 setback. There was a steady decline in U. S. infant deaths during the 1950's but increases in 1957 and 1958. Since then, the infant death rate has headed downward again but still has not made up the lost ground, even though the provisional rates for 1959 (26.4 deaths under one year per 1,000 live births) and the first half of 1960 (25.9 per 1,000) showed improvements.

In 1915, when data were first gathered on infant mortality in this country, the rate was 99.9 per 1,000. By 1940, this had been cut to 47 and by 1950, it had been reduced to 29.2.

An all-time low of 26 was registered in 1956. It edged up to 26.3 in 1957 and 27.1 in 1958.

According to the 1959 United Nations Demographic Yearbook, nine other countries reported lower infant mortality rates than the United States in 1958. They were: Sweden, 15.8; Netherlands, 17.2; Australia, 20.5; Norway, 20.5; Switzerland, 22.2; United Kingdom, 23.3; Denmark, 23.4; New Zealand, 23.4; and Finland 24.5.

Russia reported a rate of 81 in 1950 and 40.6 in 1957, latest year for which data were reported.

* * *

Persons with heart and blood vessel diseases have been urged to consult their physicians about routine vaccination against influenza. In a joint statement, the American Heart Association and the National Heart Institute of the U. S. Public Health Service said that "evidence of the past three years abundantly confirmed that dangers of influenza are much greater for patients with heart or lung disease than for others." The risk was described as "particularly high for those with lung congestion due to heart disease."

The joint statement added that three recent influenza epidemics had "again emphasized the fact that individuals with cardiovascular or pulmonary disease are more susceptible to the hazards of influenza than is the general population." The epidemics were in the fall of 1957, the spring of 1958 and early this year.

The increased risk was shown both by more severe illness and by higher fatality rates among patients with heart and blood vessel disease, the statement said.

The association and the Federal agency said influenza virus vaccine had been shown "of definite value" in preventing the disease. Side reactions were reported as "extremely few."

Medical Population Shift

Preliminary results of the 1960 census point to three trends in the medical population. According to Medical World News:

... Doctors continue to flock to the big urban centers. While population of the 50 largest cities increased only 5 per cent since 1950, the physician population rose by 23 per cent. Outside the big cities, the figures were reversed: Doctors increased by 5 per cent, as against a 23 per cent jump in population.

... As expected, the number of physicians swelled most rapidly in the booming cities of the South, Southwest, and Pacific Coast. But in many of these areas the population expansion has so outstripped medical growth, that doctors are scarcer than ever.

... Despite population declines in the big Eastern and Midwestern Cities, the physi-

cian population has increased. Only Newark, N. J. has fewer doctors than in 1950.

Number of Persons Covered by Health Insurance in USA Continues to Increase

Seventy-two per cent of the civilian population—or more than 127 million Americans—had health insurance at the end of 1959. This figure is based on reports from insurance companies, Blue Cross-Blue Shield and other health care plans.

Both the number of persons covered by health insurance and the amount of benefits paid reached new highs last year. Coverage increased by 4.8 million during 1959 to reach a total of 127,896,000 persons with health insurance protection. Benefit payments by all health insuring organizations amounted in 1959 to more than \$4.3 billion, up \$400 million over 1958.

In addition, persons with loss-of-income policies received \$838 million in benefits from insurance companies to replace income lost through disability. Thus a grand total of \$5,175,000,000 in health insurance benefits were distributed during 1959, up 10.9 per cent over 1958.

Hospital expense insurance was provided by insurance companies to 75,457,000 persons; by Blue Cross-Blue Shield and similar groups to 56,825,000 and by other health care plans to 4,861,000.

Surgical expense insurance by insurance companies covered 72,263,000 persons; by Blue Cross-Blue Shield and similar groups; 48,843,000, and by others 5,813,000.

Regular medical expense insurance accounted for 42,999,000 persons through Blue Cross-Blue Shield and similar groups; 38,227,000 through insurance company programs, and 6,347,000 through other plans.

MEDICAL NEWS IN TENNESSEE

Tennessee Academy of General Practice

The 12th annual assembly of the Tennessee Academy of General Practice was held in Nashville on October 27-28, at the Hermitage Hotel. A report of the scientific program and speakers appeared in the November issue of the Journal. An estimated 200 physicians attended the assembly. One of

the featured speakers was Brig. Gen. Charles J. Timmes, 101st Airborne Division, Fort Campbell. A special guest at the session was Mr. Mac F. Cahal, Executive Director of the American Academy of General Practice.

One of the highlights of the meeting was the election of the Outstanding General Practitioner of the state and this honor was bestowed upon Dr. Harmon L. Monroe of Erwin, speaker of the Congress of Delegates of the Tennessee Academy of General Practice and the immediate past-president of the Tennessee State Medical Association. Dr. Monroe was also re-elected speaker of the Congress of Delegates and Dr. Julian K. Welch of Brownsville was re-elected vice speaker of the delegates.

The installation of officers was held and Dr. John L. Armstrong of Somerville was installed as president. Dr. Wm. A. Hensley, Jr., Cookeville, was named president-elect. Dr. Armstrong succeeded Dr. E. L. Caudill of Elizabethton. Other officers installed included Dr. John T. Carter, Germantown, vice president; and Dr. W. W. Wilson, Old Hickory, secretary-treasurer.

The purpose of the scientific program was to keep the family physician abreast to the latest developments in all fields of medicine.

State Expands Medical Plan for Aged

An expanded medical care program for the approximate 55,000 persons receiving old-age assistance in Tennessee has been announced by the Governor. It was reported that any government sponsored medical care for the estimated 223,000 Tennesseans over 65 years of age, who are not drawing old-age assistance, will have to wait further study. It is apparent that this will require legislative action by the 1961 General Assembly and an additional appropriation from the State of Tennessee.

Two existing programs for those drawing old-age assistance from the Welfare Department will be expanded, the Governor stated. One of these provides hospitalization, the other nursing home care.

The hospitalization program for the aged is being increased by \$865,179 from a total of \$1,153,571 in available funds to \$2,018,750.

At present old-age assistance recipients in nursing homes receive up to \$60 a month

and pay the nursing home themselves. The new plan provides that the state will pay the nursing home operator directly up to \$80 monthly. The recipient will receive an additional \$11 monthly for other expenses.

Under the same legislation passed by Congress, the federal government will provide 76½ percent of the cost of providing essential medical services to persons over 65 years who are not drawing assistance from the Welfare Department. The state would be required to put up the remaining 23½ percent.

This is the program for which legislative authority and state financing are lacking. The extent of Tennessee participation will depend upon action taken by the General Assembly. Both the Old Age Assistance and the Medical Assistance to the aged programs were covered in the recent Mills Bill adopted by Congress and made effective October 1, 1960.

Meharry Medical College

The Meharry Medical College has announced a \$19.3 million nationwide drive for funds for expansion and endowment. The announcement stated that \$7.3 million would be for physical improvements and \$12 million for endowment of the Negro institution.

Vanderbilt University School of Medicine

"Cardiac Day," sponsored by the Middle Tennessee Heart Association in cooperation with the Tennessee Department of Public Health and the Vanderbilt University School of Medicine, was held in Nashville on November 17th.

Dr. Donald D. Reid, British Scientist, was one of six leading physicians who presented a symposium on problems of heart disease. Other guest speakers included Dr. Louis K. Dahl, New York City; Dr. Thomas R. Dawber, Framingham, Mass.; Dr. Tinsley Harrison, Birmingham, Alabama; Dr. Gorman Hills, Miami; and Dr. Eugene Poutasse, Cleveland.

Dr. Reid spoke on "Long-Term Anticoagulant Therapy Trials." Dr. Dahl's subject was "Diet, Salt and Blood Pressure." "Estimates of Proneness to Coronary Artery Disease" was the subject presented by Dr. Dawber, while Dr. Harrison addressed the group on "Angina Pectoris." Dr. Hill delivered a

paper entitled "Endocrine Factors in Hypertension," and Dr. Poutasse's paper was entitled "A Reconsideration of Surgical Treatment of Renal Hypertension."

The program, devoted exclusively to problems relating to heart and circulatory diseases, was for the benefit of physicians throughout the state.

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New grants for medical research totaling \$1,168,000 have been reported. The U. S. Public Health Service and National Institute of Health grants will be distributed over the next two years. Diseases to be studied include heart and blood disease and cancer. The federal grants have been approved for the establishment of a Clinical Research Center at the University.

Training at Oak Ridge in the Use of Isotopes

Some 3,000 doctors, scientists and technicians from throughout the United States and 54 foreign countries have been trained in the use of radio isotopes at the Oak Ridge Institute of Nuclear Studies, the Atomic Energy Commission has reported.

First classes were given in the summer of 1948 and in the ensuing years, 3,000 persons completed a one month course of basic isotope training.

The Oak Ridge Institute, a part of the Oak Ridge Laboratory, is a nonprofit corporation of 37 southern universities and colleges. Its purpose is to facilitate research and training relationships between the laboratory and universities.

The AEC reported that the medical division of the institute would continue to operate about its present level for the next ten years; that it will have a new irradiation facility which will permit radiation to be directed at patients from several directions with a resulting more uniform dose distribution.

It is expected that leukemia and bone marrow transplantation procedure will grow into two major lines of investigation—the evaluation of treatment of acute leukemia by whole-body irradiation and further efforts to transplant bone marrow, the report stated.

It has also been announced that the Oak Ridge Institute of Nuclear Studies acted as

host at a joint meeting of the southeastern sections of the Society for Experimental Biology and Medicine and of the Society of Nuclear Medicine. The meeting was conducted October 27-29. Representatives of the Southeastern medical schools as well as scientists from various organizations in the Oak Ridge area were in attendance.

University of Tennessee College of Medicine

Dr. Peter J. Morgane, assistant professor of physiology at the University of Tennessee Medical Units, has been awarded a research grant of \$32,267 by the National Institutes of Health. He will study the physiologic and anatomic organization of the "feeding centers" of the hypothalamus and other mechanisms concerned with hunger, appetite and satiety.

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A new \$5,000 machine is playing an important role in research work of biochemists in the study on human hemoglobin.

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Dr. Lawrence D. Amick of Albuquerque, New Mexico, has joined the staff as associate professor of physical medicine and rehabilitation. Dr. Amick will be in charge of a physical therapy unit recently installed in the John Gaston Hospital.

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Dr. I. Frank Tullis, head of the department of medicine, has announced the creation of a new position, Director of Medical Clinics, to emphasize the use of ambulatory patients in the teaching process. To head the new work, a former Memphis physician, Dr. John W. Runyan, associate professor of medicine at the Albany, New York Medical College has been elected to fill the position.

* * *

Biochemists at Southwestern and UT at Memphis have received grants from the National Institutes of Health and the U. S. Public Health Service to study the chemical composition of connective tissue in the intervertebral disks. The grants are \$25,465 to Dr. Harold Lyons at Southwestern and another of \$13,096 to Dr. Douglas H. Sprunt at UT.

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A postgraduate course in allergy was offered on November 3 and 4. It covered the

fundamentals of allergy as well as the recognition and management of allergic diseases.

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The Medical Units observed National Education Week with a Career Day on November 16th. The purpose was to familiarize high school principals and school councilors in West Tennessee with facilities for preparation for careers available to high school graduates. Career Day was sponsored by the University in cooperation with the Woman's Auxiliary to the Memphis and Shelby County Medical Society and the City of Memphis hospitals.

Middle Tennessee Medical Association

The Association held its one hundred-second semi-annual meeting on December 1, at the Carthage Methodist Church, Carthage. The meeting was called to order by Dr. Arthur A. McMurray, President. The program was as follows:

"Surgical Consideration in Atherosclerotic Occlusive Disease and Aneurysmal Disease of the Aorta and Great Vessels" by Dr. William H. Edwards, Nashville; "Photo Clinic" by Dr. W. B. Wadlington, Donelson; "Current Activities of the Tennessee State Medical Association of Interest to Physicians," by Mr. Jack Drake of the Tennessee State Medical Association, Nashville; "Medicine in Smith County in the Sixties—1860's That Is" by the Smith County Medical Society; "Analysis of a Hysterectomy Series with Particular Reference to Urinary Tract Injury" by Dr. J. T. Jackson, Dickson; "Presidential Address" by Dr. Arthur A. McMurray; "Management of Undescended Testicles" by Dr. George Holcomb, Nashville; "Emergency Resection of the Cecum," by Dr. Herschel A. Graves, Jr., Nashville.

PERSONAL NEWS

Directors of the Tennessee Division of the American Cancer Society have elected **Dr. L. M. Graves**, Memphis, vice president for the West Tennessee region.

Dr. David H. Turner has announced the opening of his office for the practice of ophthalmology at Chattanooga.

Dr. Robert H. Bossert has opened his office for the practice of medicine and surgery in Cleveland.

Dr. George H. Finer, Knoxville, recently addressed the Knoxville Chapter of the Medical assistants society. His topic was "Anesthesia After the First Hundred Years."

Dr. Ralph R. Braund, Memphis, addressed the Chattanooga Civitan Club recently. His subject was "The Importance of Early Diagnosis in Cancer Control." Dr. Braund also appeared on a TV program of the Chattanooga Health Council.

Dr. James N. Etteldorf, Memphis, has been named president and chief of staff of the Le Bonheur Children's Hospital in Memphis. He succeeds Dr. James G. Hughes, Memphis. Other Memphis physicians serving as officers are **Dr. W. Price Stepp**, vice president; **Dr. S. H. Turnbull**, secretary; **Dr. Earl L. Wrenn, Jr.**, chief of surgery; and **Dr. C. H. Householder**, chief of medicine.

Dr. Dewey Peters, Knoxville, has been named president-elect of the Knoxville Academy of Medicine. He will take office in 1962. **Dr. Jack Chesney**, Knoxville, assumes the presidency in January, 1961. Other officers elected were **Dr. H. O. Bourkard**, vice president; and **Dr. Ray Lefler**, secretary-treasurer.

Dr. Alfred D. Mason, Memphis, will be installed as president of the Southeastern Section, American Urological Association, at a meeting next March.

Dr. James B. Dukes, Knoxville, addressed the District 4, Tennessee Society of X-Ray Technicians. His subject was "The Gastro-Intestinal Series from a Technical Standpoint."

Dr. James Spaulding, Chattanooga, recently discussed "poison control" on a local TV program.

Dr. Harold Alper, Chattanooga, recently attended an international symposium on the treatment of deafness at the Henry Ford Hospital in Detroit.

Dr. C. B. Roberts, Sparta, has been named president of the Upper Cumberland Mental Health Association.

Dr. Jesse Adams, Chattanooga, was a recent guest speaker of the Chattanooga Society of X-Ray Technicians.

Dr. Marcus Stewart, Memphis, recently attended the meeting in Milwaukee of the Clinical Orthopedic Society of which he is a member of the Executive Committee. Dr. Stewart also presented a paper before the American College of Surgeons in San Francisco.

Dr. John W. (Jack) Adams, Chattanooga, recently addressed a study group at the Centenary Methodist Church.

Dr. W. R. Bishop, Chattanooga, has been elected to the Executive Council of the Association of Life Insurance Medical Directors of America.

Dr. James D. Lane has announced the opening of his office for the practice of medicine in Lafayette. He has been made a member of the staff of the Smith-Chitwood hospital.

Dr. John H. Dougherty, Knoxville, recently addressed the Breakfast Optimist Club.

Dr. Leonard W. Edwards, Nashville, who di-

rected the rejuvenation of General Hospital's medical teaching program has been awarded a plaque by the Mayor of Nashville for his voluntary services to the city.

Dr. Nobel Guthrie, Memphis, was the recent speaker of the Whitehaven Kiwanis Club. His subject was "Health."

Dr. James N. Etteldorf, Memphis, spoke on the subject "Initial Fluid Therapy of Burns" at Erlanger Hospital in Chattanooga.

Drs. M. F. Perrin and Fred B. Ballard, Jr., Chattanooga, recently attended the scientific sessions of the American Heart Association at its meeting in St. Louis.

Dr. Minnie Vance, Chattanooga, participated on the Health Council's TV program entitled "Your Doctor Speaking."

Ten physician members of the American Heart Association from Memphis recently attended the annual meeting in St. Louis. They were: **Drs. Walter K. Hoffman, John P. Conway, James Culbertson, Otis S. Warr, Robert F. Ackerman, Charles V. Dowling, Daniel Brody, I. Frank Tullis, J. Leo Wright and Daniel Copeland.**

Dr. Victor H. Klein, Jr., Knoxville, has received a distinguished service award of merit from the Knox County Unit of the American Cancer Society.

Dr. Harry A. Stone, Chattanooga, has been elected to the board of directors of the Hamilton County Unit of the American Cancer Society.

Dr. John V. Snodgrass has announced the opening of his office for the practice of medicine in Rockwood.

ANNOUNCEMENTS

American College of Allergists

The College's Instructional Course and Seventeenth Annual Congress, will be held at the Statler Hilton in Dallas, Texas, March 12-17. For information write, John D. Gillaspie, M.D., Treas., 2141 14th Street, Boulder, Colo.

The West Virginia Academy of Ophthalmology and Otolaryngology

The society will hold its annual meeting at the Greenbrier Hotel, White Sulphur Springs, West Virginia on April 6-8. The guest speakers on ophthalmology will be Dr. Irving H. Leopold of Philadelphia and Dr. Harvey B. Thorpe of Pittsburgh. Guest speakers on otolaryngology will be

Dr. John J. Shea of Memphis, and Dr. F. Johnson Putney of Philadelphia. For additional information, contact the secretary, Dr. Worthy W. McKinney, 109 East Main Street, Beckley, W. Va.

Physicians Recently Licensed in Tennessee

Smith, Theodore G., Murfreesboro
Kerby, Clifford F., Memphis
Hutcherson, John D., Palmyra, Mo.
Youngblood, Robert W., Nashville
Bossert, Robert H., Cleveland
Byden, Fred W., Nashville
Meek, Bruce W., Dallas, Texas
Hamilton, James J., Kingsport
Buttram, Thomas L., Chattanooga
Logan, Charles W., Nashville
Guice, John R., Miami, Florida
Douglass, Larry E., Nashville
McKinney, James R., Morristown
Austin, George N., Nashville
Loda, Frank A., Jr., Nashville
Schaeffer, Edward M., Iowa City
Foner, Max, Memphis
Love, Varna M. P., Memphis
Marsh, Clarence B. C., Chattanooga
Johnson, Clarence M., Athens, Ga.

Medical Newspaper to Suspend Publication

According to the Wall Street Journal, *Medical News* and *Scope* will both suspend publication in the near future. These two medical newspapers have been of considerable interest to the medical profession. The Wall Street Journal attributes their discontinuance of publication to falling profits in the drug industry and closer controls in advertising and promotion costs.

Postgraduate Day in Surgery Vanderbilt University School of Medicine

A program on *Recent Developments in Surgical Care*, is scheduled for January 19, 1961 by the Department of Surgery, Vanderbilt University School of Medicine. This is a postgraduate presentation of current concepts and methods of diagnosis and management of both adult and pediatric patients with problems in the fields of general, thoracic, and cardiovascular surgery. Interesting clinical cases will be presented. Ample opportunity for questions and informal discussion will be provided. The course is approved for 7 hours of Category 1 credit by the American Academy of General Practice. Tuition is \$15.00 which includes the luncheon. For further information address the Department of Postgraduate Instruction, Vanderbilt University School of Medicine.

1960 MEMBERS OF TENNESSEE STATE MEDICAL ASSOCIATION

The list of members of the Tennessee State Medical Association is published in compliance with a provision of the Constitution and By-Laws. The data are accurate as of December 10, 1960. They are arranged in the following order:

List of active members.

Counties arranged alphabetically.

Towns in each county arranged alphabetically and the members in each town arranged alphabetically.

List of members residing outside the state arranged alphabetically.

List of veteran members.

List of members who have died in the year 1960.

ANDERSON COUNTY <i>Clinton</i> A. W. Bishop P. M. Dings (Mbr. Roane Co. Soc.) J. S. Hall (Mbr. Roane Co. Soc.) Henry Hedden, Jr. (Mbr. Roane Co. Soc.) John J. Smith <i>Lake City</i> J. M. Cox R. B. Scott <i>Norris</i> S. G. McNeeley <i>Oliver Springs</i> F. O. Stone S. J. Van Hook (Mbr. Roane Co. Soc.)	O. L. Simpson, Jr. Trent Vandergriff Lowell E. Vinsant John A. Yarbrough BRADLEY COUNTY <i>Calhoun</i> I. M. Weir <i>Cleveland</i> D. N. Arnold Wesley A. Barton Marvin R. Batchelor Chalmers Chastain, Jr. Jack R. Free Wm. A. Garrett C. S. Heron Walter Hughes Ivan C. Humphries, Jr. Frank Jones C. H. Kimball J. C. Lowe Joseph McGoin Hays Mitchell Allan W. Percepelitz E. Harris Pierce Wm. I. Proffitt John A. Rogness Wm. R. Smith C. T. Speck, Jr. Wm. C. Stanbery S. J. Sullivan Claud H. Taylor Madison S. Trewthitt Gilbert A. Varnell	Richard Bucher E. L. Caudill, Sr. E. L. Caudill, Jr. W. G. Frost Royce Holsey Floyd May Joyce May E. T. Pearson Dillard Sholes, Jr. D. J. Slagle James M. Willett CHESTER COUNTY <i>Henderson</i> Darrell King O. M. McCallum R. L. Wilson CLAIBORNE COUNTY <i>New Tazewell</i> Wm. N. Smith (Mbr. Knox Co.)	C. N. Gessler Chas. H. Huddleston Joseph E. Hurt Joe M. Miller Luther E. Smith Wm. B. Wadlington <i>Goodlettsville</i> Roy R. Bowes W. R. C. Stewart <i>Madison</i> William J. Card Sam W. Carney Frederic B. Cothran George B. Hagan Jefferson C. Pennington, Jr. Robt. L. Pettus, Jr. Joe E. Sutherland Harry Wittum <i>Madison College</i> Hillis F. Evans Julian C. Gant Gilbert H. Johnson Cyrus E. Kendall Jean M. Slate <i>Nashville</i> Crawford W. Adams R. W. Adams, Jr. J. W. Alford, Jr. Joseph H. Allen Wm. E. Allison J. Clyde Alley, Jr. Ben J. Alper W. L. Alsobrook Arthur R. Anderson Edwin B. Anderson H. R. Anderson J. Sumpter Anderson, Jr. Joe D. Anderson Robt. S. Anderson J. J. Ashby J. Mansfield Bailey (Mbr. Wilson Co.) Joseph J. Baker Sidney W. Ballard Preston H. Bandy Edwin H. Barksdale Randolph Batson David S. Bayer Eric Bell, Jr. Lynch D. Bennett Edmund W. Benz Stanley Bernard John H. Beveridge Otto Billig F. T. Billings, Jr. Geo. T. Binkley, Jr. Russell Birmingham Eugene L. Bishop, Jr. Lindsay K. Bishop Frank M. Blackwell James B. Boddie, Jr. Geo. W. Bounds, Jr. Anna M. Bowie John M. Boylin H. B. Brackin H. B. Brackin, Jr. Cloyce F. Bradley G. Hearn Bradley David V. Bradley T. F. Bridges Dorothy L. Brown M. F. Brown (Mbr. Lincoln Co.) Louis Bryan J. Thomas Bryan John C. Burch Joseph G. Burd R. N. Buchanan, Jr. Roger B. Burris B. F. Byrd, Jr. James J. Callaway Richard O. Cannon Joe M. Capps George K. Carpenter	Oscar W. Carter Norman M. Cassell Randolph A. Cate (Mbr. Coffee Co.) W. R. Cate John S. Cayce Lee F. Cayce Robert L. Chalfant A. M. Chapnick Amos Christie Jeannine A. Classen Everett M. Clayton, Jr. Cully A. Cobb, Jr. John H. Coles, III Harold A. Collins W. J. Core Orrie A. Couch, Jr. Sam C. Cowan, Jr. Frederic E. Cowden Geo. Boyd Crafton H. James Crecraft R. R. Crowe E. Perry Crump W. Andrew Dale Rollin A. Daniel, Jr. Wm. J. Darby Philip V. Daugherty Milton D. Davis T. W. Davis Thomas C. Delvaux, Jr. Wm. A. Demonbreun Walter L. Diveley Wm. M. Doak Earl D. Dorris Robert T. Doster Beverly Douglas H. L. Douglas L. Rowe Driver Ray L. Dubuisson Price H. Duff R. S. Duke George Duncan Herbert Duncan Wm. H. Edwards Paul Elkan, D.D.S. Phillip C. Elliott James W. Ellis Irwin B. Eskind Harry M. Estes E. Wm. Ewers Don L. Eyler John L. Farringer, Jr. W. B. Farris (Mbr. Knox Co. Soc.) R. O. Fessey John P. Fields Robert M. Finks John M. Flexner Robert M. Foote Howard R. Foreman Garth E. Fort John H. Foster S. Benjamin Fowler Richard France Herbert C. Francis Horace M. Frazier John W. Frazier, Jr. Thomas F. Frist James L. Fuqua Robert K. Galloway Chas. K. Gardner James C. Gardner Sam Y. Garrett R. S. Gass Hamilton V. Gayden Horace C. Gayden J. P. Glover, Jr. John R. Glover Fred Goldner James E. Goldsberry David K. Gotwald Geo. T. Graves, Jr. Herschel A. Graves, Jr. Paul A. Green Clifton E. Greer, Jr. John W. Griffith, Jr.	Thos. W. Grizzard Laurence A. Grossman Milton Grossman Wm. E. Gupton, Jr. Arnold Haber, Jr. David W. Hailey Chas. E. Haines, Jr. Thos. B. Halton Chas. M. Hamilton J. R. Hamilton W. M. Hamilton Roy G. Hammonds Avel C. Hansen Anderson P. Harris Jackson Harris Robt. C. Hartmann A. B. Harwell James T. Hayes John H. L. Heintzelman James B. Helme J. L. Herrington, Jr. John C. Herzfeld B. K. Hibbett, III J. B. Hibbitts, Jr. William Higginson Elmore Hill, D.M.D. I. R. Hillard John W. Hillman R. H. Hirsch (Mbr. Robertson Co.) I. Harvill Hite Charlie Joe Hobdy Geo. W. Holcomb, Jr. A. N. Hollabaugh, Jr. Chas. F. Hollabaugh W. W. Hubbard James M. Huddins Granville W. Hudson Warren J. Hunzicker Vernon Hutton, Jr. M. D. Ingram, Jr. Albert P. Isenhour, Jr. J. McK. Ivie W. F. B. James John A. Jarrell, Jr. D. J. Johns Alfonso P. Johnson Hollis E. Johnson Ira T. Johnson, Jr. Edmund P. Jones T. M. Jordan Orrin L. Jones, Jr. R. H. Kampmeier Herman J. Kaplan A. E. Keller J. Allen Kennedy Wm. G. Kennon, Jr. Lowry D. Kirby Carl T. Kirchmaier J. A. Kirtley, Jr. O. Morse Kochtitzky Leonard J. Koenig C. J. Ladd, D.D.S. Roland D. Lamm Ralph M. Larsen Horace T. Lavelly, Jr. A. R. Lawson G. Allen Lawrence Ias. D. Lester Malcolm R. Lewis Milton S. Lewis Grant W. Liddle Richard C. Light John P. Lindsay Joanne Linn Robert J. Linn A. B. Lipscomb Jackson P. Lowe S. L. Lowenstein Frank H. Luton Philip L. Lyle Robt. H. Magruder Guy Milford Maness W. R. Manlove, Jr.
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Edw. H. Martin, D.D.S.
 Travis H. Martin
 Ralph W. Massie
 Jas. Andrew Mayes
 Ben R. Mayes
 George R. Mayfield
 Curtis P. McCammon
 G. S. McClellan
 Robt. E. McClellan
 C. C. McClure, Jr.
 Robt. L. McCracken
 Charles W. MacMillan
 M. Chas. McMurray
 Burton McSwain
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 Keim Baird
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 Medina
 Robert Morris
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 Pulaski
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 K. M. Kvessenberg
 W. K. Owen
 J. I. Speer
 D. M. Spotwood
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 Rutledge
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 (Mbr. Knox Co.)
 I. J. Hill
 (Mbr. Hamblen Co.)
 Washburn
 Robt. J. Phlegar
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 L. E. Coolidge
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 R. B. Gibson
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 N. P. Horner
 C. D. Hullman
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 C. B. Laughlin
 Haskell McCollum
 W. Lewis McGuffin
 Carl F. Romans
 Mosheim
 I. Dale Brown
 G. R. Evans
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 Morristown
 Lee R. Barclay
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 Kemp Davis
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 Earl R. Campbell, Jr.
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 Bennett W. Caughran
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 S. S. Marchbanks
 Fred E. Marsh
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 David P. McCallie
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 Paul V. Nolan
 Wm. C. Pallas
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 E. White Patton
 Walter A. Peterson
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 Joseph H. Stickley
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 Wesley Stoneburner
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Jack Tepper
Marjorie Tepper
Guy K. Terrell
Chas. Roberts
Thomas
Paul C. Thompson
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Minnie R. Vance
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George G. Young
Guy Zimmerman
Joseph I. Zucker-
man
- Hixson*
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Jr.
Robert J. Pitner
- LOOKOUT
MOUNTAIN**
James L. Caldwell
- SIGNAL
MOUNTAIN**
M. F. Langston
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- Soddy*
Ann Hallett
- HARDEMAN
COUNTY**
Bolivar
Earl R. Beets
D. L. Brint
H. H. Barham
Max Gradwohl
W. E. Lawrence
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B. F. McAnulty
I. Knox Tate
- Grand Junction*
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L. D. Pope
Whiteville
Anbrey Richards
- HARDIN COUNTY**
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Jr.
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Thos. V. Roe
Howard W.
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- HAWKINS
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Church Hill
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(Mbr. Sullivan-
Johnson)
*Robt. E. Keith
F. H. Robertson, Jr.
(Mbr. Sullivan-
Johnson)
- Eidson*
John M. Pearson
Rogersville
W. H. Lyons
- HAYWOOD
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H. L. Gilliland
Sue W. Johnson
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John Thornton, Jr.
I. K. Welch, Jr.
- HENDERSON
COUNTY**
Lexington
R. M. Conger
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Mamie N. Lowry
W. C. Ramer
J. C. Stripling
- HENRY COUNTY**
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Denvil F. Crowe
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Leslie E. Eason
R. Graham Fish
I. H. Jones
E. P. Mobley, Jr.
Joe D. Mobley
John E. Neumann
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Kenneth G. Ross
I. Ray Smith
C. D. Wilder
Thomas C. Wood
- HICKMAN
COUNTY**
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Parker D. Elrod
Ogle Jones
(Mbr. Davidson Co.)
- HOUSTON
COUNTY**
Erin
O. S. Luton
(Mbr. Montgomery
Co.)
- HUMPHREYS
COUNTY**
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James John Lawson
- Waverly*
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Dorris A. Sanders
Arthur W. Walker
- JACKSON
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Gainesboro
W. T. Anderson
E. Morgan Dudley
L. R. Dudley
Jack S. Johnson
- JEFFERSON
COUNTY**
Dandridge
O. L. Merritt
(Mbr. Knox Co.)
- Jefferson City*
T. A. Caldwell
(Mbr. Knox Co.)
John W. Ellis
(Mbr. Hamblen Co.)
Sam C. Fain
(Mbr. Hamblen Co.)
I. E. Howard
(Mbr. Hamblen Co.)
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(Mbr. Hamblen Co.)
Estle P. Muncy
(Mbr. Hamblen Co.)
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(Mbr. Knox Co.)
R. M. Webster
(Mbr. Knox Co.)
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(Mbr. Hamblen Co.)
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(Mbr. Hamblen Co.)
- JOHNSON
COUNTY**
Mountain City
Paul J. Bundy
R. O. Glenn
- KNOX COUNTY**
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B. D. Goodge
- Corryton*
A. D. Simmons
- Fountain City*
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- Knoxville*
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Jr.
K. W. Christenberry
W. F. Christenberry
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Oliver W. Hill, Jr.
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Howard, Jr.
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Hemy H. Long
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Campbell
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wander
Robert W. Newman
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Jarrell Penn
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- Wilson W. Powers
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Frank J. Slemmons
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Vernon I. Smith
W. E. Smith
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Roger F. White
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Charles R. Zirkle
George A. Zirkle,
Jr.
- Mascot*
H. V. Anderson
Hubert Howard
Vessci, Jr.
- Powell Station*
L. F. Crure
- LAKE COUNTY**
Ridgely
W. B. Acree
- Tiptonville*
J. R. Holefield
W. T. Kainey
E. B. Smythe
- LAUDERDALE
COUNTY**
Halls
J. T. Elmore
J. G. Olds
(Mbr. Northwest
Tenn. Academy)
- Ripley*
A. J. Butler, Jr.
J. L. Dunavant
- James Howard
Ragsdale
Landrum S. Tucker
P. W. Walker, Jr.
Claude R. Webb
- LAWRENCE
COUNTY**
Lawrenceburg
V. H. Crowder
W. O. Crowder
J. W. Danley
Boyd P. Davidson
L. B. Molloy
V. L. Parrish
Carson E. Taylor
- Loretto*
Ray E. Methvin
M. H. Weathers
- LEWIS COUNTY**
Hohenwald
William E. Boyce
(Mbr. Maury Co.)
W. C. Kecton
(Mbr. Maury Co.)
- LINCOLN
COUNTY**
Fayetteville
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L. M. Donaldson
William D. Jones
Ben H. Marshall
R. E. McConn
D. R. McRady
T. A. Patrick, Jr.
C. D. Toone
Paul E. Whittemore
- LOUDON
COUNTY**
Lenoir City
Harold D. Freedman
(Mbr. Knox Co.)
R. V. Taylor
(Mbr. Knox Co.)
- Loudon*
Corrie Blair
(Mbr. Knox Co.)
Samuel A. Harrison
W. B. Harrison
(Mbr. Knox Co.)
Wm. T. McPeake
(Mbr. Knox Co.)
J. R. Watkins
(Mbr. Knox Co.)
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Lafayette
C. C. Chittwood, Jr.
E. M. Froedge
Max E. Painter
John R. Smith
- MADISON
COUNTY**
Bemis
Kelly Smythe
Allen N. Williams,
Jr.
- Jackson*
Harold K. Alsbrook
J. G. Anderson
Thomas K. Ballard
K. J. Barnett
G. H. Berryhill
Jack H. Booth
Wm. H. Brooks
Swan Burrus
Hughes Chandler
Stanley E. Crawford
Wm. G. Crook
G. B. Dodson, Jr.
I. E. Douglass
Roy A. Douglass, Jr.
Clarence Driver
E. W. Edwards
Blair D. Erb
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Oliver H. Graves
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Geo. Harvey, Jr.
Robert S. Hill
C. L. Holmes
G. B. Hubbard
Chester K. Jones

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Leland M. Johnston
Duval H. Koonce
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R. M. Nendecker
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James A. Phillips
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John G. Riddler
Wm. H. Roberts
Howard T. Simpson
Blanche S. Somerville
Charles C. Stauffer
James L. Thomas
J. R. Thompson, Jr.
S. Allen Truex
Charles H. Webb
W. Webb Wilson
F. E. Williamson, Jr.
George B. Wyatt
Paul E. Wylie
H. R. Yarbrow

MARION COUNTY

Jasper
J. G. McMillan
(Mbr. Hamilton Co.)
South Pittsburg
J. B. Bayron
(Mbr. Hamilton Co.)
William Hendrick, Jr.
(Mbr. Hamilton Co.)
Elizabeth M. Lodge
(Mbr. Warren Co.)
Eugene Ryan
(Mbr. Hamilton Co.)
Viston Taylor
(Mbr. Hamilton Co.)
Whitwell
Cleo Chastain
(Mbr. Hamilton Co.)
Wm. G. Shull
(Mbr. Hamilton Co.)

MARSHALL COUNTY

Lewisburg
Kenneth Brown
J. T. Gordon
Hoyt C. Harris
J. C. Leonard
(Mbr. Maury Co.)
James W. Lamb, Jr.
Kenneth I. Phelps
J. I. Rutledge

MAURY COUNTY

Columbia
D. B. Andrews
Wendell C. Bennett
Mildred Casey
William N. Cook
J. R. Duley
Edward Ewton
Wm. G. Fuqua
C. C. Gardner, Jr.
Daniel Gray, Jr.
Harry C. Helm
Wm. N. Jernigan
Ralph Kustoff
Ambrose M. Langa
Robin Lyles
George Mayfield
Clay R. Miller
Edwin K. Provost
Warren Rucker
B. J. Vinson
Leon S. Ward
J. W. Wilkes, Jr.
Eleanor Williamson
Thomas K. Young, Jr.
Mc Pleasant
Taylor Robinson, Jr.
C. D. Walton

McMINN COUNTY

Athens
W. R. Arrants
Karl K. Boyd
Charles T. Carroll
L. D. Cantner
R. W. Epperson
C. O. Force
W. Edwin Force
Wm. K. Fyfe
Robert G. Hewgley
Milnor Jones
J. A. Powell, Jr.
Helen M. Richards
L. H. Shields
Robert W. Trotter
Englewood
J. I. Cleveland
Etowah
S. Boyd McClary, Jr.
John C. Sharp
H. P. Whittle
McNAIRY COUNTY
Selmer
T. N. Humphrey
Harry L. Peeler
James H. Smith
Montie E. Smith, Jr.
Howard W. Thomas

MEIGS COUNTY

Decatur
William M. Davis
(Mbr. McMinn Co.)

MONROE COUNTY

Madisonville
R. C. Kimbrough
F. Houston Lowry
Horace M. McGuire
Sweetwater
J. H. Barnes
W. J. Cameron
Joe H. Henshaw
D. F. Heuer, Jr.
T. A. Lowry
Joe K. Wallace
J. E. Young

Vonore

Troy Bagwell
(Mbr. Knox Co.)

MONTGOMERY COUNTY

Clarksville
Edward R. Atkinson
Carlos B. Brewer
E. P. Cutter
Sam M. Doane, Jr.
M. M. Green
V. H. Griffin
J. K. Hepler
Bryan I. Iglehart
Howard R. Kennedy
J. H. Ledbetter, Jr.
James L. McKnight
Arthur A. McMurray
William G. Lyle
Jack Ross
Byce F. Runyon
A. F. Russell
M. L. Shelby
D. R. Shipley
Marion E. Spurgeon
Charles A. Trahern
Harold V. Vann
Troy A. Walker
William H. Wall, Jr.
Paul E. Wilson
R. M. Workman

MOORE COUNTY

Lynchburg
F. Harlan Booher
(Mbr. Lincoln Co.)

MORGAN COUNTY

Oakdale
J. H. Carr
(Mbr. Roane Co.)
Hartburg
Edgar D. Akin
(Mbr. Roane Co.)
B. I. Smith
(Mbr. Roane Co.)

OBION COUNTY

Kenton
Alden H. Gray
(Mbr. Consolidated Cos.)
Troy
Chesley H. Hill
Union City
J. Kelly Avery
M. A. Blanton, Jr.
Harold Butler
H. W. Calhoun
Wm. N. Carpenter
Dan C. Gary
R. L. Gilliam, H.
Lawrence Jones
E. P. Kingsbury, Jr.
R. G. Latimer, Jr.
E. McCall Morris
James W. Polk
Malcolm T. Tipton
O. A. Zeller, Jr.

OVERTON COUNTY

Livingston
M. F. Clark
Wm. C. Dowell
H. B. Nevans
Denton D. Norris
W. G. Quarles

PERRY COUNTY

Linden
B. L. Holladay
Gordon H. Turner, Jr.

POLK COUNTY

Benton
John H. Lillard
(Mbr. McMinn Co.)
Copperhill
H. H. Hyatt
(Mbr. Hamilton Co.)
J. T. Layne
(Mbr. Hamilton Co.)
W. C. Zachary, Jr.
(Mbr. Knox Co.)

Ducktown

Wm. R. Lee
(Mbr. Hamilton Co.)

PUTNAM COUNTY

Algood
J. T. Moore, Jr.
Cookeville
Jack L. Clark
J. T. Deberry
Kenneth L. Haile
Wm. A. Hensley, Jr.
W. R. Joutet
Jere W. Lowe
William Mattson
Thurman Shipley
Wm. S. Taylor
J. Fred Terry
Cland M. Williams

Monterey

C. A. Collins
T. M. Crain

RHEA COUNTY

Dayton
Albert C. Broyles
(Mbr. Hamilton Co.)
Lester F. Little
(Mbr. Warren Co.)
J. J. Rodgers
(Mbr. Hamilton Co.)
W. A. Thomison
(Mbr. Hamilton Co.)

Spring City

Conrad L. Grabeel
(Mbr. Roane Co.)

ROANE COUNTY

Harriman
A. Julian Alder
Thomas L. Bowman
Fred J. Hooper
Lewis T. Howard

H. Stratton Jones
L. A. Killeffer
John R. Sisk

Kingston

Carl Henry
James A. Hoffmeister
Chas. W. Moore-held
Nat Sugarman

Oak Ridge

(See Anderson Co.)
Gould A. Andrews
Robt. P. Ball
R. R. Bigelow
Velta F. Briuks
Marshall Bruce
Chas. Congdon
Betty Cooper
John P. Crews
Kenneth Cronm
Dexter Davis
John DePersio
Robt. E. DePersio
J. L. Diamond
Earl Eversole
T. Guy Fortney
C. B. Gurney
William P. Hardy
J. M. Hays
William B. Holden
R. A. Johnson
Harvey Keese, Jr.
Avery P. King
Ralph Kniseley
Kenneth S. Lane
Thomas A. Lincoln
Lynn E. Lockett
Joseph S. Lyon
Paul R. Marsh
Robert H. Messier
Dana Nance
Bill M. Nelson
Etna Little Palmer
Elmer L. Parrott
Lewis F. Preston
William W. Pugh
Charles I. Ragan
Thos. L. Ray
Richard Rucker
Henry B. Ruley
Beecher W. Sitterson
Paul E. Spray
Charles R. Sullivan
Daniel M. Thomas
David A. White
Gino F. Zanolli

Oliver Springs

S. J. Van Hook
(Mbr. Roane Co.)
Fred O. Stone
(Mbr. Anderson-Campbell Co.)

Rockwood

Thomas A. Fuller
Robert S. Hicks
Geo. Shacklett

ROBERTSON COUNTY

Cedar Hill

R. H. Elder
Gross Plains
Ora W. Ramsey

Ridgetop

E. E. Botsford

Springfield

J. W. Atwood
Sue C. Atwood
Warren G. Hayes
John M. Jackson
C. M. Looney
J. K. Quarles
N. H. Raines
W. P. Stone
John B. Tinner
Raymond H. Webster
J. E. Wilkison

RUTHERFORD COUNTY

Murfreesboro

Carl E. Adams
W. Stanley Barham
J. B. Black
J. T. Boykin
John Cason

B. S. Davison, Jr.
Paul C. Estes
R. James Garrison
S. C. Garrison, Jr.
Dean W. Golley
(Mbr. Hamilton Co.)
J. Gilbert Gordon
Richard E. Green
Sam H. Hay
R. D. Hollowell
J. K. Kaufman
Lois M. Kennedy
M. B. Murfree, Jr.
Eugene P. Odum
James Payne
Wm. W. Shacklett
James W. Tenpenny
Smyrna
George Goodall

SCOTT COUNTY

Norma

D. T. Chambers

Oneida

M. F. Frazier
H. M. Leeds
Roy L. McDonald
M. E. Thompson
Milford Thompson

SEQUATCHIE COUNTY

Dunlap

Charles Graves
(Mbr. Hamilton Co.)
D. Clifford Ludington, Jr.
(Mbr. Hamilton Co.)

SEVIER COUNTY

Gatlinburg

Ralph H. Shilling
Bruce H. Sisler

Sevierville

R. A. Broady
John M. Hickey, Jr.
R. A. McCall
Chas. L. Roach
Robert F. Thomas
O. H. Yarberry

SHELBY COUNTY

Arlington

Malcolm A. Baker

Collierville

R. F. Kelsey

Cordova

C. A. Chaffee

Forest Hill

J. E. Clark

Germantown

John T. Carter, Jr.

Memphis

Sara E. Abbott
Robert F. Ackerman
John Q. Adams
L. H. Adams
Ralph M. Adding-ton

Henry L. Adkins
Justin H. Adler
Lorin E. Ainger

Gaured H. Aivazian
Albert M. Alexander
James E. Alexander
C. D. Allen

Chester G. Allen
F. Pearson Allen
Frank S. Allen
Robert G. Allen

J. H. Alley
Jacob Alperin
James L. Alston
J. P. Anderson
Lewis D. Anderson

Sam B. Anderson, Jr.
William F. Andrews
Donald N.

Amishanlin
D. H. Anthony
Robert A. Anthony

Blake Aronoff
J. M. Aste
H. E. Atherton

Leland L. Atkins
David F. Austin
Edgar L. Austin
Richard L. Austin
W. W. Aycock
J. C. Ayres, Jr.
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J. Earl Baker
George F. Bale
A. L. Ball
Aden W. Barlow
James R. Barr
John M. Barron
Jerome N. Barrasso
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John C. Beard, Jr.
G. H. Bassett
Emmett D. Bell, Jr.
Arthur L. Bellott, Jr.

Charles A. Bender
Hal E. Bennett
B. I. Benton

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C. R. Bishop

W. A. Bisson
W. T. Black, Jr.
Sam Blackwell
Basil A. Bland, Jr.

Breen Bland
C. D. Blasingame
Phil Blecker

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Howard A. Boone
James L. Booth

C. Whitman Borg
R. L. Bourland
R. L. Bowlin

Earl P. Bowerman
H. B. Boyd
Boyer M. Brady, Jr.

Winston Braun
R. R. Braund
James T. Bridges

Carey Bringle
Louis P. Britt, Jr.
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J. H. Bronstein
Mauri Bronstein

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Lawrence E. Brown
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Malvern T. Bryan
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K. M. Buck

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Orin D. Butterick, Jr.

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Edward G. Caldwell

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Dan Carruthers, Jr.

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Fenwick W. Chap-pell

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Glenn Clark

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James A. Clark, Jr.
E. W. Cocke, Sr.

E. W. Cocke, Jr.
Lawrence L. Cohen
M. D. Cohen

Max H. Cohen
W. C. Colbert
F. H. Cole

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James H. Collins
Frank H. Collins

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George A. Coors

Giles A. Coors
Daniel Copeland
(Mbr. Consol. Co.)
Arthur A. Cox
John E. Cox

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Lloyd V. Crawford
P. T. Crawford
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Jr.
C. V. Crosswell
Terry P. Cruthrds
James W. Culbert-
son
Alvin J. Cummins
Orin L. Davidson
Harry Davis
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Charles J. Deere
V. J. Demarco
McCarthy DeMere
W. E. Denman
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D. E. Dismukes
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Chas. V. Dowling
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Horton DuBard
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Jr.
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Allen S. Edmonson
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C. Baiton Etter
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J. D. Evans
M. L. Evans
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B. E. Everett, Jr.
Cornell C. Faquin,
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Harold G. Farley
Turley Farrar
Harold Feinstein
Burt Friedman
Daniel F. Fisher
James B. Flanagan
J. H. Francis
Jerry Thomas
Francisco
W. Edward French
Eugene W. Gadberry
Joseph C. Garbarini
Elisbeth Gehorsam
O. S. Gibbs
W. S. Gilmer, Jr.
D. Frederick Gioia
C. E. Gilliespie
B. H. Ginn
George E. Gish
Thomas C. Gladding
Willard G. Glass
C. H. Glover
Fred A. Goldberg
Ralph Goldman
Lester I. Goldsmith
D. W. Goltman
J. O. Gordon
H. B. Gotten
Nicholas Gotten
Robert D. Gourley
Thomas E. Goyey
W. H. Gragg
W. H. Gragg, Jr.
H. D. Gray
Arthur W. Green
C. R. Green
Jack Greenfield
A. J. Grobmyer, Jr.
Pauline Grodsky
Fred T. Grogan, Jr.
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Nobel Guthrie
James S. Haimsohn
Hollis H. Halford,
Jr.
Jack R. Halford
E. R. Hall
Emmett R. Hall,
Jr.
V. A. Hall
Margaret A. Halle
Ralph S. Hamilton
J. F. Hamilton
Wm. T. Hamilton
John B. Hamsher
B. F. Hardin

Mallory Harwell
Howard B. Hasen
Wm. H. Hatfield
A. Kenneth Hawkes
C. D. Hawkes
Jean M. Hawkes
C. L. Hay
L. K. Haynes
C. H. Heacock
Louie C. Henry
A. L. Herring
George B. Higley
Fontaine S. Hill
James M. Hill
E. E. Hines
John Lewis Hobson
W. K. Hoffman, Jr.
M. W. Holehan
J. E. Holmes
Sherman H. Hoover
Arthur E. Horne
Glenn E. Horton
Hubert L. Hotchkiss
C. H. Householder
John L. Houston
William T. Howard
M. B. Howorth, Jr.
James G. Hughes
John D. Hughes
Max O. Hughes
John V. Hummell
Sam E. Hunter
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Orren W. Hyman,
Jr.
J. H. Hjams
C. W. Fogle
A. J. Ingram
G. W. Stanley Ish,
Jr.
Charles E. Jabbour
Thos. M. Jackson
H. J. Jacobson
C. E. James
Hal P. James
J. A. James
Oliver C. Jeffers
W. D. Jensen
Anthony P. Jerome
J. Don Johnson
Halvern H. Johnson
A. M. Jones
George P. Jones, Jr.
R. Luby Jones
Sidney D. Jones, Jr.
Robert G. Jordan
A. Wilson Julich
Lyman A. Kasselberg
Harvey L. Kay, Jr.
Marvin M. Keirns
Ernest G. Kelly
Henry G. Kessler
W. F. Kimmell
Charles M. King
J. C. King
W. F. Klotz
F. H. Knox, Jr.
Robert L. Knox
Sheldon B. Korones
Alfred P. Kraus
Bernard M. Kraus
Melvin M. Kraus
Cary M. Kuykendall
N. W. Kuykendall,
Jr.
J. Warren Kyle
H. Z. Landis
C. G. Landsee
Herbert G. Lanford
Frank A. Latham
M. W. Lathram
A. E. Laughlin
H. G. La Velle
Robert E. Lawson
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P. M. Lewis
Alys H. Lipscomb
Geo. R. Livermore,
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D. G. Lockwood
Charles E. Long
William E. Long
J. H. Lotz
J. C. Loughheed
Carruthers Love
Verna P. Love
Martha A. Loving
George S. Lovejoy
William Lovejoy
Edward H. Mabry
W. F. Mackey
Ray W. Mackey
Holt B. Maddox
James K. Maguire
Battle Malone H.
T. P. Manigan

John C. Mankin
Philip M. Markle
M. M. Marolla
Carl D. Marsh
C. H. Marshall
George W. Matten
Tinnin Martin, Jr.
A. D. Mason, Jr.
Wm. W. Mason
Gordon L. Mathes
O. S. Matthews
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R. F. Mayer
L. H. Mayfield
Robert P. Mc-
Buiney
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John W. McCall
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Jr.
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B. F. McCleave
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E. F. McDaniel, Jr.
John L. McGee, Jr.
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B. E. McLarty
Richard P. McNelis
George McPherson
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J. A. McQuiston
A. H. Meyer, Jr.
Robert M. Miles
Lee W. Milford,
Jr.
C. W. Miller, Jr.
Fox Miller
Harold R. Miller
Richard A. Miller
Richard Braun
Miller
Richard W. Miller
Geo. T. Mills
J. Purvis Milnor, Jr.
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I. C. Minkin
B. G. Mitchell
E. D. Mitchell, Jr.
F. T. Mitchell
W. R. Mitcheum
E. C. Mobely
J. C. Mobely, Jr.
Wm. L. Mollatt
E. M. Molinski
David F. Moore
Fontaine B. Moore,
Jr.
James A. Moore
Marion R. Moore
Moore Moore, Jr.
Wm. H. Morse
Henry Moskowitz
J. P. Moss
T. C. Moss
R. Lyle Motley
Francis Murphey
Walter H. Murphy
W. F. Murrach, Jr.
Roland H. Myers
Chas. Lea Neely, Jr.
John C. Newton
Wm. L. Northrin,
Jr.
D. W. Oelker
Fuey Bassi Ogle
L. C. Ogle
W. S. Ogle
Charles B. Olim
J. C. Orman
Phil E. Orpet, Jr.
Wm. J. Oswald
Alfred H. Page
Joseph B. Parker,
Jr.
Samuel Paster
Rushton E. Patter-
son
Russell H. Patterson,
Jr.
Morris Pasternack
Bernard S. Patrick
Raphael N. Paul
G. E. Paulus, Jr.
Iris A. Pearce
B. L. Pentecost
Maurice C. Pian, Jr.
John D. Piggett
W. H. Pistole
Gerald I. Plitman
Mary Frances Poe
R. M. Pool
A. R. Porter, Jr.
C. H. Porter

Stephen A. Pridgen
J. O. Priestley
Helen Prieto
L. C. Prieto
S. L. Raines
Robert Raskind
R. B. Ray
John J. Redmon
Robert C. Reeder
Harvey C. Reese,
Jr.
H. Eugene Reese
J. R. Reinberger
W. E. Rentrop
Walter A. Rentrop
Hal S. Rhea
Chas. R. Riggs
George A. Riley
M. J. Roach, Jr.
H. C. Roberts
S. Gwin Robbins
C. G. Robinson
James A. Robinson
W. W. Robinson
W. P. Rochelle
Gordon K. Rogers
Nathaniel E. Rossett
Joseph A. Rothschild
Robert M. Ruch
Walter A. Ruch, Jr.
W. L. Rucks
H. G. Rudner
Henry G. Rudner,
Jr.
W. A. Runkle
John W. Runyan,
Jr.
J. M. Russell
P. B. Russell, Jr.
R. O. Rychener
Fred P. Sage
L. C. Sandeis
R. L. Sanders
S. H. Sanders
W. T. Satterfield
Roy D. Schaefer
S. J. Schaeffer, Jr.
David E. Scheinberg
Betty J. Schettler
Glen P. Schoettle
Jerome Schroll
P. C. Schreier
Elmer C. Schultz
Joseph L. Scianni
Benjamin F. Scott
C. B. Scott
James L. Seale
L. L. Sebulsky
Jack Segal
M. P. Segal
E. C. Segerson
M. B. Seligstein
R. E. Semmes
Norman D. Shapiro
John L. Shaw
J. J. Shea, Jr.
James R. Shelton
Roger T. Sherman
Saul Siegel
James C. H.
Simmons
W. L. Simpson
Paul R. Sissman
Edward F. Skinner
Alvin E. Smith
Harris L. Smith
Hugh Smith
O. E. Smith
Frank W. Smythe,
Jr.
John J. Sohm
Phineas J. Sparer
H. A. Sparr
J. S. Speed
Wm. O. Speight, Sr.
Wm. O. Speight, Jr.
Eugene J. Spiotta
Douglass H. Sprunt
C. Cooper Stanford
Ray G. Stark
C. Harold Steller
(Mbr. Roane Co.)
William P. Stepp
Newton S. Stern
Thomas N. Stern
Cleo W. Stevenson
E. M. Stevenson
E. N. Stevenson
M. J. Stewart
S. Fred Strain
S. F. Strain, Jr.
A. N. Streeter
Charles E.
Stickland, Jr.
Robt. J. Stubble-
field

Michael J. Sweeney
F. W. Sydnor, Jr.
Hall S. Tackett
B. S. Talley
Finis A. Taylor
James A. Taylor
Robert G. Taylor
W. W. Taylor
Morton J. Tendler
William W. Tribby
A. B. Tripp
Merlin L. Trumbull
I. Frank Tullis, Jr.
H. K. Tully, Jr.
John C. Turley
P. A. Turman
R. B. Turnbull
Steve H. Turnbull,
Jr.
C. C. Turner
Henry B. Turner
Arliss H. Tuttle
Austin R. Tyler, Jr.
Wm. F. Tyson, Jr.
Robert A. Uttei-
back
Edmund Utlov
E. A. Vaccaro
C. F. Varner
Walter E. Verner
Leonard J. Vernon
Sidney D. Vick
John R. Vincent
James W. Walker
Richard H. Walker
Richard P. Walker
W. Hamilton Walker
Fred C. Wallace
James A. Wallace
Peter B. Wallace
Bruce A. Walls
Maurice E. Waller
Cecil E. Warde
Thomas L. Waring
O. S. Warr, Jr.
W. W. Watkins
J. J. Weems
L. D. Weiner
Alva B. Weir, Jr.
S. I. Wener
J. D. West
F. H. West
William G. White
J. E. Whiteleather
Gene L. Whittington
W. L. Whittemore
W. Wiggins Wilder
Walter L. Wilhelm
H. G. Williams
Gordon L. Wills
Harwell Wilson
James E. Wilson
John M. Wilson
Andrew A. Wind-
ham
J. B. Witherington
Marvin L. Wolff
C. H. Workman, Jr.
Richard L. Wooten
C. W. Woolley
Howell D. Woodson
Earle L. Wrenn, Jr.
J. Leo Wright
Henry Wurzburg
C. F. Yates
Jack G. Young
John D. Young, Jr.
Bernard M. Zussman

Millington

A. J. Cates
Paul J. Batson, Jr.
Fletcher Goode
Billy W. King

SMITH COUNTY

Carthage
James F. Cleveland
Hugh E. Green
R. E. Key
D. Gordon Pettv
Frank T. Ruth-
ford, Jr.
Thayer S. Wilson

STEWART COUNTY

Cumberland City
F. A. Martin
(Mbr. Montgomery Co.)

Dover

Albert R. Lee
(Mbr. Montgomery Co.)
Indian Mound
C. N. Keatts
(Mbr. Montgomery Co.)

SULLIVAN COUNTY

Blountville

J. W. Erwin
Bluff City
Dorothy Griffith

Bristol

(Tenn.-Va.)

F. R. Bowers
Ialmadge Buchanan
W. C. Carreras
N. J. Chew
N. H. Copenhaver
Bennett Cowan
Wm. M. Gammon
Walter R. Gaylor
Thomas W. Green
Waverly S. Green
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Basil T. Harter
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George W. McCall
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Joe E. Mitchell
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Thos. C. Todd
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Frederick Vance, Jr.
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S. S. Whitaker
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PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts on both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A 31 year old married physician. Methodist. Graduate University of Maryland. Desires associate practice in ob-gyn in east Tennessee community. Available spring 1961. LW-349

A 32 year old married physician desires clinical, assistant or associate practice in pediatrics in Tennessee community of 25,000-100,000. Baptist. Graduate Tulane Medical School. Prefers clinic or associate practice. Available immediately. LW-364

A 46 year old married physician, retiring from military service, desires to establish ob-gyn practice in Tennessee community of 50,000-100,000. Baptist. Graduate Tulane Medical School. Prefers clinic or associate practice. Available immediately. LW-364

A 31 year old married physician, Board eligible in general surgery. Desires clinical practice in general surgery in Tennessee community of 25,000 or over. Catholic. Graduate University of Tennessee. Available immediately. LW-372

A 49 year old married physician desires private practice in psychiatry in Tennessee community of 10,000 or over. Episcopal. Graduate University of Illinois. Available immediately. LW-377

A 49 year old married physician now in general practice/surgery, desires position as hospital administrator, director of professional education in hospital, administrative director in industry or insurance. Baptist. Graduate Vanderbilt School of Medicine. Prefers location in or near large city but will locate elsewhere. Available immediately. LW-379

A 32 year old married physician, specializing in general surgery with limited orthopedics, desires to locate in Tennessee community of 25,000-50,000. Methodist. Graduate Medical College of South Carolina. Will consider clinical, assistant, or associate practice. Available December, 1960. LW-381

A 31 year old married physician, Board eligible in June 1961, desires clinical practice, assistant or associate, in internal medicine in east Tennessee. Protestant. Graduate University of North Carolina. Available July 1961. LW-382

A 32 year old married physician desires to establish practice in Ophthalmology in Tennessee community of 20,000 or over. Will consider clinical, assistant or associate practice. Church of Christ. Graduate University of Tennessee. Available May 1961. LW-388

A 30 year old married physician desires to establish a general practice, either clinical, assistant, associate or industrial, in middle Tennessee community. Church of Christ. Graduate University of Tennessee. Available April 1961. LW-391

Physicians Wanted

Middle Tennessee community of 8,000 in need of a physician in the field of internal medicine. Must have 2 years internship and 1 year residency training. Office space located near newly built hospital. PW-136

Pediatrician with 2 years internship and 1 year residency training needed in middle Tennessee community with new hospital. Office building located near hospital. Office furnished except for doctor's private office and examining rooms. PW-137

Rural, middle Tennessee community of 800 in need of general practitioner to replace physician leaving community to enter the military service. Office space and hospital privileges available. Near good hunting and fishing area. Good location. PW 139

Small southern Tennessee community in need of general practitioner. No other physician in community. Office space and some equipment available. PW-147

Physician in west Tennessee town of 500,000 desires an associate GP. Completely furnished office available. PW-148

East Tennessee community of 1100 desires general practitioner. One other doctor in community. Office space and equipment will be provided to suit physician. Hospital located in community. PW-149

Internist in large western Tennessee city desires associate. Modern air conditioned office. Complete diagnostic equipment. Adequate technical help. PW-150

Otolaryngologist or ear, eye, nose and throat physician to purchase practice after brief association. Present owner reentering government service in 1961. Minimum amount of cash required. PW-152

For immediate occupancy; office in choice location of large western Tennessee city. Completely equipped with diagnostic equipment, including x-ray department. Attractively and completely furnished, less than 8 months old. Adequate free parking for staff and patients. PW-153

Clinic in upper east Tennessee community desire associate with 1-3 years Surgical residency. Four other doctors in community. New Hospital. Will support physician who will agree to further training, or physician may replace present physician to allow further training in surgery. PW-155



2005-2006

